



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

LONGMANS'

GEOGRAPHICAL READING BOOKS

ASIA  
AND  
AFRICA



2017 f 138  
L2







# GEOGRAPHICAL READING BOOKS

EDITED BY F. W. RUDLER, F.G.S.

---

## ASIA AND AFRICA



LONDON

LONGMANS, GREEN, AND CO.

1886

2077 f 138

*All rights reserved*



PRINTED BY  
SPOTTISWOODE AND CO., NEW-STREET SQUARE  
LONDON

## PREFACE.

---

THIS book completes a series of which the object is to supply a connected course of geography to be taken in successive years; hence the books are written in different styles, each adapted to the scholars for whose use it is intended. The most important truths of physical geography are explained, and are also illustrated in the descriptions of the various countries; while attention is drawn to the most direct and obvious relations which exist between the physical features of different parts of the world, and the peculiarities in the lives and occupations of their respective inhabitants.

The six earlier books of the series have already been introduced into the schools of the Liverpool School Board, with the approval of H.M. Inspector for the district, who is authorised, under the Education Code, to sanction a deviation—such as that made in this series—from the exact order in which the code defines the subjects to be taken under the head of geography.

In the first or introductory book will be found suggestions to aid teachers in explaining to young scholars of the ages common in Standard I. the significance of maps. The other books are adapted for use in elementary schools as 'reading books,' in the successive Standards II. to VII. Their contents are as follows:

Book II. describes some typical animals, and illustrates the relation of their habits to the character of the countries in which the animals are respectively found, as well as the broader distinctions of animal life.

Book III. explains the simpler facts of physical geography, especially those which the scholars can observe in their daily life, the more advanced truths of this subject being reserved for illustration in the later books.

Book IV. describes the British Islands.

Book V. the British Colonies and Dependencies.

Book VI. Europe and America, and Book VII. Asia and Africa, with the exception in each case of the British possessions in these continents.

Various writers have assisted in the preparation of these books, but the whole course is in harmony with one consistent design, and is edited by Mr. RUDLER, F.G.S., Curator of the Museum of Practical Geology.



# CONTENTS.

## ASIA.

	PAGE
INTRODUCTION . . . . .	5
THE HIGHLANDS . . . . .	12
RAINFALL AND CLIMATE . . . . .	22
RIVERS AND IRRIGATION . . . . .	36
LAKES . . . . .	48
DESERTS . . . . .	52
VEGETATION . . . . .	58
THE ANIMAL WORLD . . . . .	64
POPULATION . . . . .	69
TURKEY IN ASIA . . . . .	89
ARABIA AND THE SARACEN DOMINION . . . . .	100
THE COUNTRIES OF THE IRANIAN PLATEAU . . . . .	107
PERSIA . . . . .	110
AFGHANISTAN AND BELUCHISTAN, AND PASSES THROUGH THESE COUNTRIES TO INDIA . . . . .	113
RUSSIA IN ASIA AND INDEPENDENT TURKESTAN . . . . .	121
CHINESE EMPIRE . . . . .	134
INDO-CHINA . . . . .	157
JAPAN . . . . .	162
MALAY ARCHIPELAGO . . . . .	168

## AFRICA.

INTRODUCTION . . . . .	171
RELIEF OF THE CONTINENT . . . . .	181
RAINFALL . . . . .	186
LAKES AND RIVERS . . . . .	191
CLIMATE AND VEGETATION . . . . .	203
ANIMALS . . . . .	214
POPULATION . . . . .	223
INFLUENCE OF THE PHYSICAL FEATURES UPON THE HISTORY OF THE CONTINENT . . . . .	244
POLITICAL DIVISIONS . . . . .	248
AFRICAN ISLANDS . . . . .	279
APPENDIX:—	
OCEAN CURRENTS . . . . .	282
TIDES . . . . .	286

## MAPS.

GENERAL FOLDING-OUT MAPS OF ASIA AND AFRICA ON  
VEGETABLE VELLUM.

# ASIA.



## 1.—INTRODUCTION.

ASIA is remarkable for the grandeur and variety of its physical features. The largest of all the continents, its northern headlands jut far into the frozen waters of the Arctic Ocean, while its southernmost peninsula almost touches the equator. It includes the highest mountains, the deepest hollow, and the largest table-land in the world. For majestic and navigable rivers it is no less remarkable. Its vast extent and varied surface bestow upon it great diversity of climate, ranging from the violent changes of heat and cold in the Siberian plains to the uninterrupted summer of the equatorial regions, and from the dry and barren highlands of Tibet to the well-watered and fertile plains of China.

It is to the vegetation of Asia that we owe many of the most useful of our cultivated plants, while its animal world has provided us with the most valuable of our domestic creatures.

In its political aspect Asia is equally interesting. From its teeming plains and wild hill-sides have poured westwards, in successive migrations, those ener-

getic races whose descendants now people the greater part of Europe, the Mediterranean provinces of Africa, and a large part of America. Within the temperate zone of Asia dwelt some of the most civilised nations of antiquity, a conception of whose greatness we may form from the sad utterances of the Hebrew prophets when captive amidst the splendour of the Assyrian and Babylonian monarchies.

Furthermore, in the history of religion Asia fills a place in every way unique. We need hardly remark that Palestine was the birthplace of the Christian faith; in Asia, also, were first proclaimed the only other forms of religious faith which have ever spread widely through the world.

Around Asia, too, hangs that melancholy interest which attaches to glories that have passed away, to power seldom wielded for the good of future generations, and to great discoveries rusting by disuse. Her once glittering cities now stand in weather-beaten ruin, unnoticed and uncared for, or lie buried deep beneath the desert sand: her mighty warriors, who from time to time gathered into a single empire nations of discordant religious faiths and laws, seem by the horrors of conquest to have added to the Asiatic dread of intercourse: her ancient sages have bequeathed their learning to successors whose chief care is to hinder its further growth.

Thus the East, once the source of light and civilisation, now looks to the West for the influences which are to stir her languid pulse. What will be the position that the great Asiatic nations will assume when they become inspired by the spirit of modern progress, is one

of the most important political questions of the future. We shall see as we proceed with these lessons what important revolutions are even now being effected by European ideas and European government.

The continent of Asia extends from 78° N. lat. to within one degree of the equator, and from 26° E. long. to 190° E. long. Within these limits it comprises an area of over seventeen millions of square miles, which is a third of the whole land-surface of the globe.

On three sides the continent is bounded by the ocean: on the north by the Arctic, on the east by the Pacific, on the south by the Indian Ocean. Its west side is also bounded by water, except where its frontier borders Africa and where it is conterminous with that of Europe.

With the exception of Europe, no other continent possesses so varied a coast-line as Asia. The northern seaboard is broken up by numerous gulfs and inlets; while on the eastern, southern, and western shores large peninsulas project from the mainland into the ocean.

From the south of Asia project three large peninsulas, which in some respects bear a curious resemblance to three on the south of the European continent. Thus, in both continents numerous islands are clustered round the easternmost peninsula; the central peninsula in both is cut off from the rest of the land by the highest mountain system in the continent, and has a large island lying off its south coast; and finally, the westernmost peninsula in both consists of a broad mass of table-land, separated from Africa only by a narrow strait.

Let us now trace upon the map the outline of the Asiatic continent, starting from the mouth of the river Kara, its north-western boundary. From this point to the East Cape, which marks the limit of the north of Asia, the whole of the coast is included in the vast country of Siberia, and is washed by the Arctic Ocean. The waters of this ocean are navigable for only three months of the year; during the remaining nine they are covered by wide ice-fields, the haunts of bears and seals. Even in the open months the pilot's task is rendered well-nigh impossible by floating masses of ice.

The principal openings on the Arctic coast are those formed at the mouths of the two great rivers—the Obi and the Yénesei; and the chief projection is Cape Sévéro, the most northern point of Asia. Throughout its whole length the northern seaboard is flat and barren; here and there stunted trees may be seen approaching almost to the water's edge, but in general nothing varies the monotony of the aspect; and during the winter, when sea and land are alike frost-bound, it is often difficult to tell where the one begins and the other ends. On leaving the Arctic Ocean we pass through Behring Strait, which in its narrowest part separates Asia from North America by an interval of only thirty-six miles. It is a curious reflection that so narrow a strip of sea should divide the Old World from the New, and yet five centuries ago these were to mankind as completely severed as if indeed they had been two separate worlds. South of Behring Strait the Behring Sea and the Sea of Okhotsk wash the eastern coast. They are divided from each other by

the peninsula of Kamtschatka, which, with its backbone of volcanic mountains, terminating in Cape Lopátka, projects boldly between them.

---

## 2.—INTRODUCTION (*continued*).

SOUTH of the Sea of Okhótsk lies the Sea of Japan, which separates the south-eastern extremity of Siberia and the mountainous isthmus of Corea from the islands of Japan. On rounding the southernmost point of Corea, we find the waves of the Yellow Sea breaking upon the shores of China proper. Here the scenery changes. Fertile plains and richly cultivated hills succeed to the low swampy shores and craggy rocks of Siberia. Large harbours, and vessels hailing from all the chief maritime countries of the world, mark the important commercial position of China, the one great independent Asiatic Power.

North of the Yellow Sea lies the Gulf of Pechili, which is separated from it by the projecting Shantung peninsula. South of the Yellow Sea the coast-line of China curves gradually round in a south-westerly direction, and is bordered by the Eastern Sea, by the Formosa Channel, dividing the beautiful island of Formosa from the mainland, and by the China Sea.

The China Sea further washes the eastern shore both of the Indo-Chinese peninsula, and of its southern prolongation, the peninsula of Malacca, and forms the large gulfs of Tonquin and Siam. On rounding Cape Románia, the southernmost point of Asia, we thread the Strait of Malacca, leading between the mainland

and Sumatra into the Indian Ocean. That part of this ocean which lies between the two peninsulas of India and Indo-China is called the Bay of Bengal. To the north we find that rich part of India which includes the deltas of the Brahmaputra and the Ganges. On the south-east of India is the Coromandel coast. At its southern extremity the great peninsula is separated from the island of Ceylon by Palk Strait. Navigation in this strait is rendered somewhat difficult by a chain of rocky islets, known as Adam's Bridge, which stretches between the peninsula and the northern coast of Ceylon. Cape Comorin is the southernmost point of India.

The sea-line now runs in a northerly direction past the Malabar coast and the Gulf of Cambay. Here we enter the Arabian Sea. Passing beyond the shores of Beluchistan, two magnificent gulfs, separated by the southern coast of Arabia, mark important divisions of the land. The more easterly, called the Persian Gulf, severs the Persian highlands from the Arabian tableland. It is entered by the Gulf of Oman and the Strait of Hormuz. The more westerly is so large as to be called the Red Sea. Entered by the Gulf of Aden and the Strait of Bab-el-Mándeb, it stretches northwards between Arabia and Egypt; thus dividing the continents of Asia and Africa, except across a narrow neck of land in the north. Here a water connection is now established with the Mediterranean Sea by the Suez Canal, a magnificent engineering work only lately finished; but the line of division between the two continents runs east of this along the little river, or wady, El Arish. Thus the Suez Canal lies altogether in African land.

North of El Arish we enter that part of the Mediterranean which is spoken of as the Levant, bordering the shores of Palestine and Syria and the south coast of the peninsula of Asia Minor. The Ægean Sea, the Dardanelles, the Sea of Mármora, the Bosphorus, and the Black Sea, to the point where the



STRAIT OF BAB-EL-MANDEB.

Caucasus descends into its waters, complete the open sea-boundaries of Asia.

From this point its frontier is conterminous with that of Europe, and is, as we have seen in the lessons on that continent, defined by the Cáucasus, the Caspian Sea, the Ural River, the Ural Mountains, and the river Kara.



### 3.—THE HIGHLANDS OF ASIA.

OF all the highland systems in the world that belonging to Asia is at once the most vast and most complicated.

General character of highland systems. The closest attention, and frequent reference to the Physical Map, will be needed before its general features can be grasped.

The first great fact to be noticed is that the parts of the highland system are, with few exceptions, connected as one whole. To this the only exception of great importance is the mountainous country in the south of India, called the Deccan; other less noteworthy exceptions will be spoken of in their place. After realising this continuous character of the highlands, the next step is to observe that in about E. long. 70° their width from north to south is so much less than in any other part of the continent as to make the mountainous region here rather like an isthmus connecting a great eastern mass of highlands with a great western mass. This isthmus of mountains is spoken of as the Hindu-Kush range.

Of the western mass of highlands we may say broadly that with the one exception of the river plains, which form, as it were, a north-westerly continuation of the Persian Gulf, it extends from the Hindu-Kush throughout the whole of Western Asia, south of the great Siberian and Russian lowlands. We shall deal more particularly with this western system hereafter, but our attention is first called to the marvellous highland formation east of the Hindu-Kush,

Eastern highland system.

which forms, indeed, the most striking physical feature in the whole continent.

Rising high above the level of the surrounding country, closed in by its lofty mountain-walls, and accessible to the outer world by only a few passes, this eastern highland mass has been described as a continent within a continent. Bordered and traversed by high ranges, it contains within its area terraces, steppes, and table-lands at elevations of from 13,000 to 15,000 feet, as well as depressions lying at a level of only 2,000 feet above the sea. Although its chief characteristics are barrenness and desolation, yet it has also its fertile regions, its smiling valleys, and its pleasant oases. It possesses, furthermore, a distinct system of rivers and lakes, the waters of which dwindle away among the sands of this vast basin and never reach the sea. Another interesting fact is, that within its area are contained the sources of several of the most important rivers in Asia.

Towards the east the limits of this inland continent are defined by the chain of the Khinghan Mountains, the Inshan Hills, and by a collection of ridges sometimes spoken of as the Yun-ling Mountains, with regard to which our knowledge is still very imperfect. None of these ranges are of great height, and there are very few peaks on this eastern edge which rise above the snow-line.

West of the Yun-ling Hills, the mighty Himalaya range, sweeping westward in a gigantic curve, with its convex side towards India, forms the south-western face of the eastern mass. In this chain, the loftiest in the world, there are no fewer than

Eastern  
limits.

Western  
limits.

forty-five peaks, each over 23,000 feet in height, while the lowest passes are as high as the summit of Mont Blanc. At their western extremity the Himalayas are connected with the Pamir plateau, a region of bleak lofty plains with a mean height of about 15,000 feet. This plateau is nevertheless one of the most interesting regions to the geographer. Forming the western extremity of the inland continent, it is also the converging-point of the bordering ranges on the north-west and south-west, and of the Hindu-Kush chain, by which, as already mentioned, it is connected with the western highlands. The principal ranges which traverse the interior of the eastern mass have also their starting-point in the Pamir plateau. This important position has gained for this plateau a name which among the natives signifies 'the Roof of the World.'

The northern boundary of the inland continent is formed by two groups of ranges—the Thian Shan and the Altai. Starting from the Pamir, we first find a succession of ranges running from east to west, the spurs of which descend towards the plains to the west like the teeth of a saw. The valleys thus lie also east and west. This description applies to the Thian Shan group and the western part of the Altai.

Farther east, the Altai ranges bend to the north-east; but here a plateau formation of no great height prevails, spreading on the one hand far eastwards, and on the other to the Arctic Ocean. The Yablonoi Hills are the most distinct range.

Let us now trace the huge spurs which extend outwards from both ends of the eastern boundary of this vast central country. In the north-east corner the Stanovoi

Hills run like a backbone along the eastern coast to Behring Strait. With this range is connected the mountainous mass occupying the Kamtschatka peninsula. Sixteen burning peaks attest the volcanic character of this chain, which is of very great height. It is, however, only part of an immense volcanic system, which appears again in the Kurile Islands and in Japan. The other outworks of the great plateau are the hills which project from its south-eastern base and cover China with a network of ranges, and the parallel chains which extend in a south-easterly direction from the Yunling highlands and traverse the Indo-Chinese peninsula throughout its entire length.

Outward  
spurs of the  
eastern  
highlands.

---

#### 4.—THE HIGHLANDS OF ASIA (*continued*).

HAVING now briefly enumerated the ranges which border the eastern mass, we shall examine its interior, and shall find that it is traversed by several ranges, all having a general direction from west to east. By far the most important dividing range is the Kuen-Lun. It stretches from the Pamir right across the interior, and is continued beyond the eastern boundary into the Chinese plain, under the name of the Tsing-Ling Mountains. South of the Kuen-Lun lies Tibet, the most lofty table-land in the world. To the north of the range the land sinks into a vast desert, which, though on an average 3,000 feet above the sea, seems by comparison a lowland region. This region is divided into an east and a west section—the basin of the river Tarim, and the plateau of

Internal  
ranges of the  
eastern  
highland  
system.

Mongolia; but as both divisions consist, for the most part, of sandy wastes, they are often spoken of together as the Desert of Gobi.

Now that we have an idea of the general relief of the eastern highlands, the question next arises as to how Passes into the eastern highlands. this region may be entered. What passes and valleys connect this fastness of nature with the adjacent countries? With the answer to these questions are associated some of the most thrilling passages in the history of the world; for the passes which pierce the outer barriers of the eastern highlands were those through which, in former times, warrior hordes, inured to hardship and privation in this bleak and barren land, swept down upon the surrounding plains, carrying ruin and desolation into the fairest regions of Asia and of Europe.

Towards the east we find that China was especially subject to barbaric invasions, for throughout the whole length of the eastern edge of the highlands there are numerous passes offering no very serious obstacle to the invader, and the Chinese have only been enabled to protect themselves from the inroads of their neighbours by subjugating them. The northern face of the highland mass is also easy of access, as the Yablonoi, or Apple Hills, are low and rounded in outline; but towards the west, among the Altai Mountains and the lofty spurs connected with them, the only outlets are afforded by the beds of rivers flowing through rocky and dangerous defiles. The Pamir steppe is perhaps the most impassable portion of the frontier lines of the eastern highlands. Surrounded by the terminal spurs of those mountain chains which converge towards it, the few passes are all lofty

and difficult. On the south, the Himalayan passes, although numerous, are all very high. The ranges in the interior, being crossed by several well-known passes, offer no insuperable obstacle to the passage of an army.

The Himalayan Mountains extend, as we have seen, from the Pamir plateau with a south-easterly sweep to about 95° E. long., where they merge into the Himalaya Mountains. Yun-ling Mountains. Rising above the great northern plain of India, the southern outskirts of the Himalayas are formed by a range of hills, varying in height from a few hundred to 3,000 or 4,000 feet. In some parts these hills are divided from the inner ridges by long parallel valleys; in others they are so closely connected with them as to be only distinguishable by the difference of their geological formation. Behind these sub-Himalayan hills rises a second range, with crests varying in height from 5,000 to 10,000 feet; and behind these again towers the main range, which has gained for the whole system the name of the Himalaya, or the 'abode of snow.' Towards its western extremity the central chain divides into two, which enclose between them the upland valley of Southern Kashmir. We thus see that the Himalayas, far from constituting a single chain, consist of several parallel ridges, more or less interrupted, and enclosing between them long valleys through which numerous rivers flow. The ranges here and there throw off lateral spurs, and are pierced by transverse valleys, through which the rivers, after flowing for some distance in a direction parallel to the main system, finally effect their escape southwards to the Indian plains.

/ The highest peaks occur in groups at intervals along

the principal ridge. The western and central sections contain much loftier peaks than the eastern. Mount Everest, the highest summit yet measured, is upwards of 29,000 feet above the sea-level.

An almost entire absence of lakes deprives the Himalayas of one of the chief charms of mountain scenery. The grandeur of the towering peaks, some softened by a white mantle of snow, others, steep and rugged, rising in naked majesty to the skies, is, however, unsurpassed. The sublimity of this wonderful region is increased by the gigantic glaciers, some of them thirty or forty miles in length, which creep down from the regions of desolation into the sunny valleys below, as well as by the depth of the gloomy ravines which form the beds of wild torrents.

The table-land of Tibet, the loftiest in the world, forms the highest section of the eastern plateau. Sloping gradually towards the east, this table-land has an average height of 15,000 feet, but some of the upland plains which constitute its surface rise to even greater elevations, while others are only 10,000 or 12,000 feet high. Screened from damp winds by encircling mountain ramparts, the climate of Tibet is distinguished by a dryness so extraordinary that flesh exposed to the atmosphere, instead of putrefying, crumbles into dust. Owing to this dryness and to other causes the vegetation is scanty, consisting for the most part of coarse pasturage.

The loftier plains often present nothing to the eye but a dreary stretch of monotonous levels bounded by rugged naked hills. Fruit-trees and various kinds of grain are, however, cultivated in the neighbourhood of

the towns and villages, and here and there the table-land is intersected by fertile wooded valleys.

### 5.—THE HIGHLANDS OF ASIA (*continued*).

FROM the Hindu-Kush the western highlands extend beyond the Caspian Sea to the western extremity of

Asia Minor.  
Western highlands.

In this western highland mass there is one remarkable indentation, where the Persian Gulf and the river plains of Mesopotamia pierce far into the mountain country, and are only separated from the Black Sea by the Armenian highlands, and from the Mediterranean by the Syrian coast ranges. Thus by this inlet the western highlands are divided into three portions, each a plateau. From the Hindu-Kush westwards to the Armenian highlands stretches the great Iranian or Persian plateau; from Armenia to the Ægean Sea, and southwards to Syria, the Anatolian plateau; and from the Syrian coast ranges the Arabian plateau.

Turning first to the Iranian plateau, we notice that it is bordered to the north by mountain chains

which extend continuously from the Hindu-Kush past the southern shores of the Caspian Sea to the Armenian highlands. Consequently for most of its length the Iranian plateau is bounded by the vast expanse of northern plains. Hence its name, which means the Land of Light; while the wintry steppes to the north are well distinguished as Turania, the Land of Darkness.

No less clearly defined are the other boundaries of



the Iranian plateau. To the east it is enclosed by the Suliman Mountains, which divide it from India. Hence its bordering ranges sweep round the southern coast, and follow the bends of the Persian Gulf. The boundary is completed by the Kurdistan highlands, in which dwelt of old, warlike tribes, a scourge to the dwellers in the plains below.

Internally the Iranian plateau is divided into an eastern and a western group of mountains enclosing a great depression, some parts of which are not more than five hundred feet above the level of the Caspian. This eastern group of mountains, too complicated in its arrangement to allow of description here, includes Afghanistan on the north and Beluchistan on the south. Immediately west lies a vast depression including the great salt desert of Persia. In this barren district dreary saline marshes give place westward to shifting sands, and sands to grassy plains. But every year the sand gains upon the arable soil. Colonel MacGregor says, 'You see the sand blowing against the wall, gradually getting higher and higher till it blows over, and then forms a mound in the field beyond, which gradually increases its height till all trace of wall and field is lost, and you have before you a sand-heap. I can quite believe now the story of towns being buried, having myself seen the thing on a small scale.'

Almost separated from the Anatolian plateau, the Caucasus chain stretches like a mighty wall between Europe and Asia, flanked on each side by inland seas, and with only a single breach piercing its frowning battlements. To this one tremendous fissure, known as the Dariel Gorge, all the roads

Anatolian  
plateau.

from the north converge ; and from it all those to the south spread out.

Passing through the eastern part of Armenia, where Mount Ararat rises in solitary grandeur, we notice that there are two groups of highlands. The northern is continued by ranges along the Black Sea to the Ægean coast, the southern by the Anti-Taurus and the Taurus chains, while the valley which runs through the midst of Armenia opens, as it were, to form the central tablelands of the Anatolian plateau. Mount Olympus and Mount Ida, two mountains celebrated in ancient legend, rise in the north-west corner of Asia Minor.

The mountainous district near the Levant deserves a fuller consideration, for here have taken place some of the most stirring events in the world's history.

In the north are two ranges, running side by side, called the Lebanon and Anti-Lebanon ; while in the south is the hilly country of Palestine. Bare limestone faces are especially characteristic of the former, and hence, indeed, their name of Lebanon, or 'white.' Mount Hermon is the highest peak. The highlands of Palestine enclose a long narrow hollow terminating in the Dead Sea, a lake which is so deeply sunk that the surface of its waters is 1,300 feet below the sea-level.

Such a natural pit as this is nowhere else to be found on the face of the earth. East and west of this extraordinary valley are naked cliffs about 2,000 feet high, sloping on one side to the Mediterranean, on the other towards the Syrian wilderness. With the highlands of Palestine are connected those of the Sinai peninsula. It was here, according to the historical books of the Old Testament, that Moses and his people

wandered for forty years before they entered on the promised land of Palestine.

The general features of Arabia are 'those of an elevated table-land, backed up by low mountains to the west and gradually rising in the direction of the east and south, where we find it bordered by a second and loftier mountain range.' Within this belt of coast mountains is a second belt of burning desert sands, and within this again rises 'a series of table-lands undulating in long slopes and intersected with deep valleys, the former rich in pasturage, the latter in field and garden produce.' Each of these portions occupies about one-third of the area of the peninsula.

One other range isolated from the great system of highlands deserves notice. This is the Ural chain of mountains, or rather hills, which divide Asia from Europe, but are of insignificant height, the greatest altitude being 5,540 feet.

Arabian  
plateau.

Ural Moun-  
tains.

## 6.—RAINFALL AND CLIMATE OF ASIA.

It will assist us to understand this subject if we first consider the general as well as local causes which determine the winds in the torrid zone.

Land and  
sea breezes.

The main causes of winds in every part of the earth are differences of temperature in the atmosphere. Currents of air always flow from cooler to warmer regions, for where the air is cooler it is denser, and where it is warmer it is lighter. The lighter air consequently rises, the cooler air rushes in

to take its place, and thus a wind is caused.<sup>1</sup> A simple illustration of this truth is seen in warm maritime regions, where alternations of land and sea breezes correspond with the alternations of day and night. In the daytime the sun's rays heat the land more quickly than the water, and sea breezes then draw inwards to



A LAND BREEZE.

the land; while at night, when its temperature falls below that of the water, the breezes blow outwards towards the sea.

But differences of temperature are not the only causes which rule the directions of the winds. The

<sup>1</sup> In general terms it may be said that air always flows from regions of high atmospheric pressure to those of low pressure, just as water always tends to flow from higher to lower levels. The differences of atmospheric pressure are due partly to changes of temperature and partly to changes of humidity. Not only is cold air denser than hot air, but dry air is denser than moist air.

rotation of the earth also influences them. Inasmuch as every part of the earth makes a complete rotation in the same period of twenty-four hours, it follows that the parts on the equator which traverse the largest circle must move faster than any others. For instance, while the parts of the earth on the equator rotate at the rate of 17 miles a minute, those on the 60th degree of latitude rotate at only half

Trade  
winds.



A SEA BREEZE.

that speed. A wind, therefore, which is blowing towards the equator is always moving towards places which are rotating faster than the places it is leaving, and when a wind is blowing from the equator the reverse is the case.

Here we must add that the air, if not set in motion by differences of temperature, is carried round with the earth in its rotation, and as we are also moving round with it at the same speed, the air appears to us to be

at rest. But when the air is set in motion towards the equator by differences of temperature, it lags somewhat behind the earth, which slips from under it. Thus such a current of air tends to acquire a direction from east to west, unless some mountain barrier or other causes interfere with its course. On the other hand, when winds are moving from the equator they retain for a time the greater velocity of the rotation of the places they are leaving behind them, and thus tend to acquire a direction from west to east.

The influence of the combined causes referred to—namely, differences of temperature in the atmosphere and the rotation of the earth—is most clearly seen in those parts of the Pacific and Atlantic Oceans where no great areas of land intervene to interrupt the courses of the winds, and which lie within the torrid zone. There the greater heat of the atmosphere draws air from the north and from the south, and in consequence of the rotation of the earth the winds acquire a considerable inclination towards the west. Accordingly, in the open and tropical parts of these vast oceans we find, throughout the whole year, in the Southern Hemisphere, southeasterly winds, and in the Northern Hemisphere northeasterly winds. These winds are known as the *trade winds*, while the regions they sweep over are spoken of as the ‘sailor’s paradise.’ For the trade winds are so constant in their direction that navigators can rely on them, and thus, especially before the use of steamers, they were invaluable in furthering commerce between different countries. In the regions of these winds, vessels often glide speedily on their way for weeks together without their sails being either furled or reefed,

while the sailors enjoy a time of peaceful rest and security unknown to them in other regions of ever-changing winds and fitful storms.

Near to the equator the trade winds meet, and uniting, ascend to the higher atmosphere, where they are separated into two upper currents, one of which blows northwards, the other southwards. In their ascent and progress through the higher atmosphere they are cooled, and at last, growing denser than the air below, they gradually descend and supply the place of the air which is always passing from the higher latitudes to the equator, in the surface currents of the trade winds. Thus in the torrid zone there are on each side of the equator two opposite currents of winds—a lower one, blowing towards it, and an upper one, from it.

It should be added that the exact meeting-place of the trade winds, though always near to the equator, varies slightly with the revolution of the earth round its orbit, and occurs on the side of the equator which is at the time most directly turned towards the sun, and which is consequently the hottest. Moreover, where these winds meet and ascend, they leave below them a belt of calms, which is also a belt of frequent and heavy rains, for as the rising currents of air are cooled in the higher atmosphere, they precipitate in floods the great amount of moisture absorbed from the sea.

---

## 7.—RAINFALL AND CLIMATE OF ASIA (*continued*).

LET us now turn to the subject of the *monsoons*—those periodical winds which have a most important relation to the climate and vegetation of India and Indo-China. We see at a glance that these peninsulas are surrounded on all sides except the north by vast expanses of sea. It is evident that the winds in these regions must differ widely in their courses from the trade winds. For these peninsulas present enormous areas of unbroken land, in the northern parts of which, as well as in Central Asia, the temperature varies considerably at different seasons of the year. Accordingly, the prevailing winds here are mainly determined by the differences of temperature between summer and winter.

When the hot weather begins the winds draw inwards to the heated land surface. On the other hand, later in the year, when the temperature of the land falls, the winds from the sea gradually cease, and their place is taken by prevailing winds blowing outwards from the land. Both these currents of air are, like the trade winds, influenced by the rotation of the earth. Accordingly they are known as the south-westerly and north-easterly monsoons, the former being the prevailing wind of the hot season, and the latter of the cooler one.

We need hardly add that the south-westerly monsoons which sweep up from the sea are the winds from which India derives almost its whole rainfall. They set in about April, when heavy clouds begin to roll over the

India and  
Indo-China.  
The mon-  
soons.



country, and accumulate for many days in dense masses before the rains begin. Finally, as their temperature is reduced on the higher mountain ranges and in the cooler upper atmosphere, they discharge their abundant stores of moisture in such deluges as are rarely seen in Great Britain. At this time, though the actual heat is lessened, it continues oppressive from the dampness of the air, and the lower regions of India become very unhealthy.

The heaviest rains of course occur on the exposed side of the mountain ranges. Nearly the whole of the vast plains which stretch across Northern India, and which are not enclosed either on the west or east by mountain ranges, receive in most seasons an ample rainfall, and in the regions near to the snowy heights of the Himalaya Mountains it is heavy, varying annually from 100 to 140 inches on many of the southern ranges. In the Khasia Hills, which face the northern extremity of the Bay of Bengal, and are only separated from it by lowlands, the rainfall has been known to reach 490 inches between the middle of April and end of September. In the western portion of the northern plains there is, however, a vast dry tract, known as the 'Great Indian Desert.' Here the low elevation of the land and the bare heated sands are unfavourable to the condensation of the moisture, which is swept over them further inland.

When we turn to the southern plateau of the Deccan we find that on the Western Ghats, and on the coast lands between them and the Arabian Sea, the rainfall is very heavy; but so much rain falls in these regions that the supply left for the interior is rather scanty, and many districts are liable to occasional droughts, followed

by terrible famines. On some of the Western Ghaut districts the average annual rainfall amounts to 250 inches ; while at Poona, just on the eastern side of the Ghauts, it is only about 27 inches.

Most welcome to the people of India is the period, which occurs about the month of October, when the north winds set in. Then the air becomes dry and cooler, and the Europeans who have taken refuge in the high mountain stations during the hot damp weather descend to the lower lands to resume their various duties.

We must add that the climate of India is modified in a remarkable manner by local causes, and varies less than in most countries extending over so wide a range of latitude. Indeed, the heat in summer is greatest in parts of the northern plains, which are sheltered by the Himalayas from cooling north winds, and are swept by hot winds, heated in their passage over the 'Great Indian Desert.' On the other hand, in the greater part of the more southern tropical regions of the Deccan the heat is tempered by the greater height of the land and the proximity of the sea. The result is, that in nearly the whole of India about nine months of the year are very hot and the remainder pleasantly cool.

The climate of Indo-China is subject to much the same influences as that of India. We need not therefore describe it in detail. In this peninsula there is the same alternation of monsoons, accompanied by heavy rains, except in its southern extremity, which is sheltered from these winds by the island of Sumatra, and there also the temperature varies very little, and is high all the year round.

From India and Indo-China we now pass to another

subdivision of Asia in which the rainfall is very abundant. This subdivision embraces the whole eastern coast of Asia, from the south of China to Behring Strait. Its limits inland are defined by the great mountain ranges which border Tibet and Mongolia, and the long line of hills that reaches thence to the north-eastern corner of Asia.

China and  
the eastern  
coast.

Lying within the temperate zone, the whole of the eastern coast is distinguished from the peninsulas of the south by the greater changes of seasons. In the summer months the heat in the south of China is great, but never so oppressive as that which visits India; and as we advance farther north it becomes more and more moderate. In winter severe cold is experienced in the north of China, where the rivers are often frozen over. Still farther to the north, beyond Manchooria, the Amur is blocked with ice for six months in the year. These alternations of season, even in the plains of China, are much more marked and more regular than any we are accustomed to in England, or indeed in Central Europe; while in the Chinese highlands and in the more northerly portions of the eastern coast, such as Manchooria, the suddenness of the change from winter to summer, and back again, is almost beyond conception. Those portions of the land which are nearly or completely encompassed by the sea—for instance, Corea, Kamtschatka, and the Japanese and lesser islands—have a climate which is much less rigorous than that of other regions lying in the same latitude.

Another cause which raises the temperature of these islands is the current of water from the tropical seas, which, driven from east to west by the steady trade

winds in the Pacific Ocean, strikes the East Indian islands and then turns in a northerly direction, carrying warmth with it as far as the Behring Sea.

This current is the exact counterpart of the equatorial and gulf stream in the Atlantic.

So far we have observed the essential differences between the eastern and southern coasts of Asia, viz., that while on the east the changes of season are, like ours, from winter to spring, summer, and autumn, corresponding to the change in the sun's noonday position, those in India and Indo-China are mainly from the dry season to the wet and back again to the dry. Let us now notice the points which the two climates possess in common. These are the distribution of the winds and of the rainfall. In China the indraught of air to the centre of the continent comes mainly from the south, and the summer winds therefore blow from the south-west, setting up the China Sea; while in winter the atmospheric current is reversed. Higher up the coast, as may easily be seen on the map, the winds blow more from the east in summer and the west in winter.

The summer winds are in general those which bring moisture, and the winter winds are dry.

---

## 8.—RAINFALL AND CLIMATE OF ASIA (*continued*).

As the climate of all those central portions of the continent which we may call 'dry Asia' have several features in common, it will be best to state these carefully once for all.

Central dry  
regions of  
Asia.

In the first place, there is a very great difference

between the temperature of day and night. Thus, in Mongolia, during the spring, ice sometimes forms upon the pools an inch thick in a single night, while during the day the temperature rises above that of our hottest summer weather. In the second place, the seasons are marked with extraordinary sharpness, spring and autumn dwindling down to periods of a few weeks instead of months as with us. A climate characterised by these features is called 'continental,' a term which denotes that it is such a climate as we are accustomed to find in the centre of a large continent. It is nearly always associated with an extremely dry atmosphere, because air which is deficient in moisture transmits the undiminished heat of the sun during the day, and at night allows the radiation from the earth into space to proceed unchecked.

One natural division of the portion of Asia which we are now considering is that lying between the Altai and Thian Shan ranges upon the north and the Tibet and Mongolia. Himalayas upon the south. The whole of this vast region has a remarkably uniform climate of the continental type; for although Tibet lies to the south of Mongolia, its superior altitude robs it of the greater warmth which it would otherwise enjoy. No more striking instance of the benefits conferred by an abundant supply of rain can be adduced, than the difference between these lands and the river plains of China or India. From busy and prosperous countries, in aspect almost like a perpetual garden, we climb up into barren highlands, on which seems to rest the silence of death. The great intervening mountain ranges blot out the whole system of fertilising winds and rains, until in

the Desert of Gobi we reach a sandy expanse hardly exceeded in desolateness by any portion of the earth's surface.

In Siberia, on the other hand, although the climate is continental in character, it does not exhibit the same uniformity as in Central Asia, but varies in a marked manner with the latitude. At first sight it may seem strange that the climate should be of the character termed continental, for the country is bounded on the north by the Arctic Ocean. But it must be observed that the summer winds travel southwards, and are thus continually reaching warmer localities. As the air becomes heated its water-bearing power is increased, and the tendency to the formation of rain is lessened. There are, moreover, no mountain slopes in the path of the winds until the Altai range is encountered. Here the rains are heavier, and the climate is so much improved, that the Russians compare it to that of Italy. The Arctic Ocean does, however, like all other great expanses of sea, exert some influence in moderating the periodical changes of temperature, for the coldest part of Siberia is situated, not on the shores of that ocean, but some distance to the south, in the basin of the river Lena. Here the thermometer usually falls in the depth of winter to 88° Fahr. below the freezing-point. This extraordinarily low temperature is followed in summer by a very high one. In July and August the thermometer sometimes marks 70° Fahr. above the freezing-point (102° Fahr. on the scale), which is about the summer heat of most lands under the equator.

But the great heat lasts only a few weeks, and the

intense cold many months. The result is that in many parts of the dreary swamps, called 'tundras,' that stretch along the Arctic coast, although the surface is thawed in summer and can be cultivated, the ground below it continues permanently frozen to a depth often of a hundred feet.

In the lowlands of Turkestan which extend eastwards from the Caspian Sea to the Thian Shan and Altai Mountains, the climate approximates Turkestan.

to that of Siberia. The same depressive alternations of heat and cold are experienced, but there is a much longer summer, lasting in Khiva from April to November. In consequence of the prevailing dryness a great part of this country is desert, interspersed with green oases wherever there are rivers or where water is brought to the surface by wells. Other portions, especially towards Siberia, consist of monotonous steppe country covered with a scanty grass in the spring.

Persia and Afghanistan have a continental climate, especially marked in the former country, where the ring of mountains which surrounds it induces a remarkably dry climate, and converts a large portion of the interior into pure desert.

Let us lastly consider an important part of Asia which extends far into the torrid zone, namely, the peninsula of Arabia. Its climate contrasts remarkably with that of the other southern Asiatic peninsulas of India and Indo-China.

We may almost describe the Arabian climate as continental, as, though not in the heart of a great continent, it is far removed from any great sheets of water. A glance at the map shows us that Arabia.

only on part of its southern side is this peninsula bordered by a broad sea, and that it also is so sheltered there by the eastern extremity of Africa that it nowhere lies directly in the course of the south-west monsoon. Moreover, the Arabian coasts are in most places bordered at only a short distance from the sea by mountain ranges which, though of no great height, almost exhaust the scanty supplies of moisture which reach the land. On the south and west coasts are belts of lowlands, which receive moderate rains; also in the interior of Arabia there is an extensive highland district, known as the Nedjd, which, though encircled by a belt of desert, receives a sufficient rainfall to make it with the aid of the wells comparatively fertile. But with the exception of these districts almost the whole of Arabia suffers from want of moisture, and a large part of the country is included in the great belt of deserts which stretches over the interior of Asia and Northern Africa. In some of the driest parts of Arabia years pass without a shower, and water can only be obtained from a few wells, the possession of which is a cause of frequent strife among the native tribes. For instance, how familiar to us is the story of the feuds between the herdsmen of Abram and Lot, who separated in consequence! Nor can we forget with what difficulty Moses compelled the selfish shepherds of Midian to allow the daughters of Jethro to draw water from the solitary well of the neighbourhood.

The temperature of Arabia varies greatly under the influence of local causes, such as differences in the amount of the rainfall and the elevation of the land. In some of the barren desert regions the temperature rises



in the daytime to as high a point as in any part of the earth. The climate, however, of the Nedjd highlands is very healthy, and though the days are rather hot the nights are generally cool and pleasant. Among the peculiarities of the climate are the dreaded poison winds common in some of the desert regions. They are accompanied by terrific gusts which sweep round in a circle, enclosing an inner space filled with suffocating gas. This gas is so stifling and poisonous that while it is passing over a traveller his only chance of saving his life is to cover his face with a cloth and press his face against the ground, so as to inhale the air he requires from the scanty supply existing in the sand. The wonderful instinct of the camels teaches them, when these terrible winds are approaching, to bury their muzzles in the ground, but horses are said to lack this instinct, and often perish in consequence.

---

## 9.—RIVERS OF ASIA.

WATERED by many of the largest rivers of the world, and in some parts covered by a perfect net-work of streams, Asia at the same time includes vast areas, like the deserts of Southern Arabia and of the Mongolian plateau, which do not contain a single rivulet. The distribution of water, or the hydrography of this continent, is further remarkable for the proportion which its inland drainage bears to its drainage into the sea.

About one-fourth of Asia is watered by rivers which never reach the ocean, but either discharge themselves

Peculiarities  
of hydro-  
graphy of  
Asia.

into some inland sheet of water, or dwindle away by evaporation and absorption into the soil. Each of the great table-lands has its own basin of inland drainage, in which the direction of the tributary streams is determined by some depression in its surface, the largest basin being the hollow which includes the Turkestan lowlands, and the Caspian and Aral Seas. This basin receives not only the drainage from the western Thian Shan, the Pamir steppe, the northern edge of the Iranian plateau, and other Asiatic highlands, but also that from the south-eastern plains of Europe, through the Volga and the Ural. Another remarkable fact in connection with many Asiatic rivers is the position of their sources. We should naturally expect to find these streams rising on the outer or seaward slopes of the bordering ranges, but instead of this many of them have their origin far in the interior of the central plateaus. In many instances the rivers have to flow for a considerable distance in a direction parallel to the intervening chains before they find an outlet to the ocean.

From what we have said, it will be seen that the rivers of Asia divide themselves into two classes, viz. those which have an *oceanic* and those which have an *inland* drainage. To the first class belong the Obi, the Yenesei, and the Lena, flowing northwards; the Amur, the Hoang-Ho, and the Yang-tse-Kiang, flowing eastwards; the Mekong, the Irrawaddy, the Brahmaputra, the Ganges, the Indus, the Tigris, and Euphrates, flowing southwards; and the Kizil Irmak, a stream in Asia Minor which empties itself into the Black Sea.

Rivers  
divided into  
two classes.

The second class includes the Amu Daria and Sir Daria, both of which empty their waters into the Sea of Aral; the Tarim, which feeds the lake called Lob Nor, and the Jordan, which terminates in the Dead Sea.

The Obi, the Yenesei, the Lena, and their tributaries cover Northern Asia with a network of rivers, and in summer afford an almost unbroken water-way throughout Siberia. In winter they are converted into ice thoroughfares, along which the traffic of the country is carried on by means of sledges.

Thus to the Siberian they are always useful, but as they are frost-bound during so great a part of the year, the estuaries being free from ice for only ten or twelve weeks, these streams do not possess the commercial importance which their size and volume would otherwise confer upon them. To the world at large the little Thames, with its total length of 220 miles, is far more important than the giant rivers of Siberia, with their combined navigable length of over 20,000 miles. We shall not therefore describe them further, and shall only remark here that while the Obi and Yenesei rise behind the mountain barriers through which they ultimately force a passage northwards, the Lena is an exception to this general rule, and has its sources on the outer slopes near Lake Baikal.

The Amur is Siberia's only channel of communication with the Pacific Ocean. This, together with the fact that its mouth is open for six months in the year, renders it the most important river of Northern Asia. Rising in the Eastern plateau, the river pierces the Khinghan Mountains, and after pursuing

a very winding course, and receiving several large tributaries, empties itself into the Sea of Okhotsk. Accessible to vessels of light draught for a distance of over 2,000 miles from its mouth, the Amur is in its lower course



SCENE ON ARCTIC RIVER.

large enough to admit vessels of deep draught ; but a bar at its mouth, and several sand-banks which occur at intervals in its bed, are serious impediments to navigation.

---

10.—RIVERS OF ASIA (*continued*).

BOTH the Hoang-Ho and the Yang-tse-Kiang, the two great rivers of China, rise among the rugged up-lands of Tibet, at no great distance from each other, and both flow with many windings eastwards, the former into the Gulf of Pechili, and the latter into the Yellow Sea. The sources of the two streams and their mouths also are thus not very far apart, and the lower Hoang-Ho and Yang-tse-Kiang are actually connected by a canal. Their middle courses, however, are separated by an interval of at least 1,000 miles, where the Hoang-Ho makes a great northerly, and the Yang-tse-Kiang a great southerly bend.

The Hoang-Ho is chiefly remarkable for the extraordinary shiftings of its channel. In the earliest period of which we have any record it entered the Gulf of Pechili north of the Shan-tung peninsula, but in the thirteenth century it suddenly changed its direction, and discharged itself through a new channel into the sea south of Shan-tung. Until the middle of the present century it continued to flow in this bed, when gradually bursting through its embankments it once more poured its waters into the old channel. Besides these stupendous changes the course of the Hoang-Ho has undergone minor alterations, no less than nine changes of its lower course being recorded in the Chinese annals. These have all been accompanied by ruinous floods, which have gained for the river the evil name of the 'trouble of the sons of Honan.' Although the Hoang-

Ho and the Yang-tse-Kiang derive their waters from the same mountains and flow through the same country, there are, perhaps, no two other rivers which contrast so strongly with each other. The Hoang-Ho receives scarcely any tributaries, and is so rapid and shallow as to be hardly navigable. The majestic Yang-tse-Kiang is swelled by numerous affluents, is navigable to large vessels for over 1,000 miles, to vessels of light draught for over 2,000 miles of its course, and with its tributaries affords a waterway of over 12,000 miles. The Hoang-Ho, even apart from inundations caused by the changes of course, is subject to fearful floods, which break through all artificial restraints, and spread ruin far and wide over the surrounding country. To those who have never witnessed a disastrous flood, it is difficult to convey a true idea of the feelings of helplessness during its rising and of hopelessness after its retreat. As the silent waters steal over the green fields, there is little sign of the enormous strength and prodigious speed which will enable them to sweep away trees, bridges, houses—even whole villages, with all the life they contain—into the brown swelling current. Neither as they retreat do we picture the disfigurement of the earth's face which is soon to be revealed. Crops are destroyed, of course, but rich lands are often converted into stony tracts or covered with unfertile mud, and the wealth acquired by years of patient toil vanishes in a week. The Yang-tse-Kiang is free from these disastrous floods, as in its lower course it is edged by a series of lakes, which receive the overflow of the river when it is swollen. Broad and placid it sweeps on its way to the ocean, spreading fertility around, so that in

8  
:  
:  
a  
e  
a  
w:  
p  
s:  
ba  
of t  
by  
Jap  
muc  
the

A  
island  
which

different portions of one river. The Brahmaputra is fed by numerous affluents. During the summer rains it is much swollen, and floods the surrounding lowlands to a depth of several feet. The Ganges, unlike many of the rivers described, has its sources on the outer or southern edge of the great central plateau. Rising in a mighty glacier on the seaward slope of the main Himalayan range, it pierces through the outlying hills, and flows in an easterly direction to its confluence with the Brahmaputra. On its way it receives many tributaries, the largest of which is the Jumna. The delta formed by the united Ganges and Brahmaputra is the largest in the world, extending for 80 miles along the sea-shore and reaching 200 miles inland. It is a network of streams the channels of which are constantly shifting. Of these branches the Hooghly, on which stands the city of Calcutta, is the most important, and is the main highway to the sea. During the summer rains the delta is always flooded. Both the Brahmaputra and the Ganges become navigable where they quit the Himalayas and enter the plains, but access to them from the sea is rendered rather difficult by the sand-banks and other impediments which encumber the delta channels.

Passing over the Godavari and the Kistna on the east coast of India, and the Tapti and Nerbudda on the west coast, we reach further north the mouth of a river famous in Asiatic history. Rising in the Tibetan table-land, near the source of the Sanpo, the Indus flows westwards. After draining the valley between the Karakorum and Himalayan ranges, it makes a bend southwards, passes through a gap in

The Indus.



its basin are included some of the richest and most densely populated lands of the world. The waters of the Yang-tse-Kiang are, in common with those of most other Chinese rivers, crowded with thousands of junks and vessels, inhabited by a vast population who have no other dwelling-places, but are born, live, and die in their floating homes.

### 11.—RIVERS OF ASIA (*continued*).

THE Irrawaddy is formed by the confluence of two streams which are supposed to rise in the Tibetan high-lands, although the actual sources have not been discovered. It waters the western part of the Indo-Chinese peninsula, and forms a large delta at its mouth. It can be ascended by large vessels for a distance of 300 miles.

The Brahmaputra and the Ganges unite near their mouths to form a vast delta. To the geographer the Brahmaputra is interesting because of the mystery that hangs over its source. The upper Brahmaputra is, however, most likely identical with the Sanpo, the chief river of Tibet. This stream rises near a little lake in the western part of the table-land, and flows eastwards along the northern base of the inner Himalayan range until near the eastern extremity, where it plunges southwards through a gorge inhabited by mountain tribes so fierce that their country has never been explored. As, however, on the southern side of this valley we find the Brahmaputra issuing, it is now generally believed that the two streams are only

different portions of one river. The Brahmaputra is fed by numerous affluents. During the summer rains it is much swollen, and floods the surrounding lowlands to a depth of several feet. The Ganges, unlike many of the rivers described, has its sources on the outer or southern edge of the great central plateau. Rising in a mighty glacier on the seaward slope of the main Himalayan range, it pierces through the outlying hills, and flows in an easterly direction to its confluence with the Brahmaputra. On its way it receives many tributaries, the largest of which is the Jumna. The delta formed by the united Ganges and Brahmaputra is the largest in the world, extending for 80 miles along the sea-shore and reaching 200 miles inland. It is a network of streams the channels of which are constantly shifting. Of these branches the Hooghly, on which stands the city of Calcutta, is the most important, and is the main highway to the sea. During the summer rains the delta is always flooded. Both the Brahmaputra and the Ganges become navigable where they quit the Himalayas and enter the plains, but access to them from the sea is rendered rather difficult by the sand-banks and other impediments which encumber the delta channels.

Passing over the Godavari and the Kistna on the east coast of India, and the Tapti and Nerbudda on the west coast, we reach further north the mouth of a river famous in Asiatic history. Rising in the Tibetan table-land, near the source of the Sanpo, the Indus flows westwards. After draining the valley between the Karakorum and Himalayan ranges, it makes a bend southwards, passes through a gap in

The Indus.

the mountain barrier, and then, traversing the Indian plain, discharges its water through several branches, which form an extensive delta into the Arabian Sea. At the point where the Indus quits the mountains it is joined by the Cabul River, which carries off the drainage from the southern slopes of the Hindu-Kush. Lower down five streams, of which the Sutliġ is the largest, unite in one channel, and under the name of the Punjnuġ empty themselves into the Indus. The Indus varies much in depth and width according to the seasons. After the rains it has in one part a width of several miles, which during the dry season gradually dwindles to 2,000 yards. One result of these inundations is, that with the exception of Hyderabad at the head of the delta we find no large towns built on the banks of the main stream, all the important cities contained in its basin being erected on the tributaries. The Indus and its affluents are navigable for light craft to within a few miles of the Himalayas.

The lofty terraces of the Armenian highlands give birth to the twin rivers the world-famed Tigris and Euphrates. After flowing for some distance in opposite directions east and west, they bend round and pursue a course which, although very winding, has a generally southerly inclination. The name of Mesopotamia, or 'Between the Rivers,' has been bestowed on the country included between the two streams, and is also generally, though incorrectly, applied to the whole lowland district which they water. Near Bagdad the Tigris and Euphrates approach within twenty miles of each other. Below this point they diverge, but soon begin again to draw near, until finally

Tigris and  
Euphrates.

they unite in one stream, which, under the name of the Shat-el-Arab, enters the Persian Gulf a few miles lower down. This, however, was not the case in former days, for then that part of the plain which lies below the junction of the rivers, and which is entirely due to the mud brought down by their waters, did not exist, and the Tigris and Euphrates entered the Persian Gulf by separate mouths. During the last 300 miles of its course the Euphrates does not receive a single tributary, and evaporation being very rapid, it loses much of its water before it reaches the sea. The Tigris, on the other hand, is swollen by numerous affluents, and becomes ever deeper and broader as it approaches the sea. Like most rivers which have their origin among lofty mountains, the Tigris and Euphrates are subject to inundations after the melting of the snow. The Euphrates is navigable for 1,200 miles of its course, and the Tigris up to the point where it quits the highlands. These two rivers possess a special interest for the student of ancient history. Their names are connected with those of the oldest monarchies in the world, and on their banks stood Nineveh and Babylon, two of the proudest cities of antiquity.

---

## 12.—RIVERS OF ASIA (*continued*).

At the head of the rivers which have no oceanic drainage stand the classical Oxus and Jaxartes—the *Amu Daria* and the *Sir Daria* of modern times. The *Amu Daria* has its origin in the lofty Pamir plateau, which is drained by its head streams.

The Oxus, or  
Amu Daria,  
and the  
Jaxartes, or  
Sir Daria.

It maintains a westerly direction through the highlands, but on entering the Turkestan depression changes its course, and flows north-westward to the Sea of Aral, into which it discharges itself through several branches. Swollen by many feeders throughout its upper course, the Amu Daria does not receive a single tributary in its lower course, and its volume is much diminished by the quantity of water drawn off to supply irrigation canals. The sediment deposited by the river at its mouth is a serious hindrance to its navigation, as vessels drawing more than four feet of water are thereby prevented from passing up it. A good deal of traffic is, however, carried on by light craft along the Amu Daria. Like the Hoang-Ho, the Amu Daria has several times shifted its channel. Twice within the historic period it is known to have flowed into the Caspian, whence it has twice again returned to the Aral Sea. The bed through which it at one time entered the Caspian is still indicated by a line of wells. In olden days the Amu Daria possessed especial importance as forming the boundary between the civilised communities of Western Asia and their barbaric northern neighbours. The Jaxartes, or Sir Daria, rises in a glacier in the Thian Shan range, and after flowing westwards through a series of romantic gorges enters the Turkestan depression. Hence its course is parallel with that of the Amu Daria, and like that river it discharges itself into the Sea of Aral. This stream has also shifted its bed, having at one time emptied its waters into the Amu Daria, and through that stream into the Caspian. Sand-banks block the mouth of the Sir Daria, and offer insurmountable obstacles to any but very light craft.

The Jordan rises in the Lebanon Mountains, and thence flows through that remarkable hollow of which we have already spoken as containing the Dead Sea. Before emptying itself into this sea the Jordan passes through the Lake of Tiberias. This river is useless for purposes of navigation. During the annual inundations it overflows its banks, and renders the surrounding country very fertile.

From what has been said it will be seen that although Asia is watered by an extraordinary number of large rivers, yet it contains districts like

*Irrigation.*

Arabia, the Syrian Desert, and the Eastern Gobi, in which not a single continuous stream is to be found; and others like the Western Gobi, the Turkestan depression, and the Mesopotamian plain, where the water-supply is entirely confined to one or two large rivers having their sources among the mountain snows. Wells, reservoirs, canals, and other means of artificial irrigation have therefore, from the earliest times, been a necessity in parts of Asia. When carefully attended to, these works have been the means of reclaiming wide tracts from barrenness, while their neglect has in recent times allowed whole districts which once supported flourishing populations to relapse into desert lands. Mesopotamia, now a parched and thirsty land, except during the wet season, when the waters spread far beyond the river banks, was under the Chaldean and Assyrian monarchies one vast beautiful garden. During the rainy portion of the year the excess of water was carefully stored in reservoirs, and thus provision was made for the long dry months. An excellent system of canals stretched like a vast web over the

land, bringing a sufficient supply of water to the most outlying districts. In the Turkestan lowlands may still be seen a striking instance of the great results which may be achieved by careful irrigation. Here one river, the Zerafshan, which rises in the Thian Shan and terminates in a little lake in the desert, has a course of only 570 miles, and yet feeds eighty-five main canals with a combined length of 1,570 miles. The water is conducted from these main canals by countless smaller ones, and is spread over the fields either directly or by water-wheels. 'There are three methods of applying the water in tillage. For such plants as cotton and tobacco it is brought through the fields in small ditches, and allowed to filter through the soil. For rice the fields must be kept submerged for a considerable time at different periods. For wheat, when an even distribution of water is necessary, the field is usually divided into squares by small walls of earth a few inches high. When these squares are filled with water the opening from the canal is closed, and the water is left to soak in.' The supply of water due to each village or individual is regulated by the State, and dishonesty in this particular is the cause of numerous lawsuits.

---

### 13.—LAKES OF ASIA.

MANY of the lakes of Asia are of a character of which there are comparatively few other instances in the world. Our usual idea of a lake is a sheet of water fed by streams and springs, and draining seawards through some river. Of this class of lakes Asia contains several,

but in addition there are in this continent numerous inland bodies of water, which, although in some instances receiving large rivers, have no outlet, and lose water by the process of evaporation only. The greatest number of these undrained lakes is found in the Gobi Desert, the Zungarian

Lakes.—Extraordinary number of lakes without an outlet.

Straits, and in the vast expanse of plains and steppes which extend westwards from the Altai and Thian Shan ranges as far as the Black Sea, and southwards to the northern limits of the Western Asiatic highlands. Their existence here is usually explained by the supposition, amounting almost to certainty, that at a former period these regions were covered by two great inland seas, connected by that curious depression in the Zungarian highlands, between the Altai and Thian Shan Mountains, which is known as the Zungarian Straits. Westwards, this inland Mediterranean communicated with the Black Sea across the depression north of the Caucasus. Gradually the land rose and these seas dried up, until at last nothing remained to attest their former existence but isolated sheets of water filling up the deeper hollows in their beds. Such are the Caspian and Aral Seas, Lake Lob Nor in the deepest depression of the Gobi Desert, and the succession of lakes in the Zungarian Straits. Some of these lakes communicate with each other, but none of them have any outlet seawards. All are filled with salt water, for as the salts brought down by the rivers are not carried to the sea and cannot escape by evaporation, there is a continual tendency to become more and more brackish, until at last the liquid can hold no more salt, and then precipitation occurs.



The Caspian Sea fills the lowest portion of this great depression, and forms one of the most extensive hollows in the surface of the globe. Occupying an area rather larger than that of Great Britain and Ireland, the surface of the Caspian is eighty-four feet below the sea-level, and is falling yet lower. Though the sea receives the waters of the giant Volga, the Ural, and other large rivers, and has, as we know, no outlet, yet the loss by evaporation is greatly in excess of the supply. Navigation in the Caspian is occasionally rendered very difficult by heavy storms, which drive the water far over the plain wherever the shores lie low, so that on one occasion a vessel was stranded 46 miles inland.

The Sea of Aral derives its name from the numerous islands which stud it, *Aral* being the Tartar word for island. It is rather more extensive than the Irish Sea, and lies at a height of upwards of 100 feet above the Caspian. The waters of the sea are shallow, and are frequently ruffled by heavy storms. In winter the northern part is generally frozen, but the southern end remains open. Although fed by the Amu Daria and Sir Daria, the evaporation is here, as in the Caspian, in excess of the supply, and the surface of the Sea of Aral is slowly subsiding.

The Dead Sea is another lake with no seaward drainage, the level of which is gradually sinking. Besides its enormous depth below the Mediterranean level, the Dead Sea is remarkable for the intensely salt character of its waters. Fish cannot live in them, and the human body will not sink. At that end of the lake where the river Jordan enters

stretch the plains on which once stood Sodom and Gomorrah. Though this country is now desolate, and covered with masses of bitumen, its aspect must have been very different in the days when Lot chose it for his home.

Lake Balkash, lying west of the Zungarian Straits, is another remnant of the Asiatic Mediterranean.

Within the historic period it included the lakes of the Zungarian Straits, which in consequence of the gradual contraction of its area are now isolated. Although much diminished, Balkash is still a considerable sheet of water, but so shallow that though its extent is thirty-six times that of the Lake of Geneva it contains only twice its volume of water. It receives several rivers, and the mud which they deposit is gradually raising its bed. In winter the lake is frozen over.

Baikal, the largest sheet of fresh water in Asia, has a length of 370 miles and a width of from twenty to thirty miles. It lies a few degrees west of the Yablonoi Mountains, and its overflow is through the Angora, a tributary of the Yenesei River. On every side it is encircled by lofty granite peaks, which, aided by the clearness of its water and the picturesque appearance of the islands dotting its surface, render the scenery surpassingly beautiful. The lake is situated on the main commercial route between China and Siberia, and has a line of steamboats plying upon its waters. During the winter Baikal is frozen over.

Besides the lakes and seas which we have enumerated Asia contains numerous others, both fresh and salt. The Altai Mountains especially are celebrated for

the number and beauty of the miniature seas which nestle in the hollows among their giant peaks, and the table-land of Tibet is also rich in this respect. The Himalayas, on the contrary, are almost entirely devoid of lakes, and the same remark applies to the three great peninsulas, none of which contains a single large lake, with the exception of Cambodia in Indo-China.

In Siberia the annual inundations form large swampy lakes, which from the nature of the land are not drained away when the floods subside, but lie stagnating in the hollows until the rising rivers again stir their sullen depths with an inrush of fresh water.

Siberian  
swamps.

#### 14.—DESERTS OF ASIA.

THE deserts of Asia are so numerous that it is necessary to refer to the varieties of country embraced under this term.

The word 'desert' is commonly applied to all areas which are not sufficiently fertile to be habitable by settled and industrial communities; while the term 'oasis' is used to define the exceptional districts which frequently diversify even the dreariest deserts, and are fertile all the year round. Most of the Asiatic deserts may be included in one or other of the following classes.

(1) Deserts where the surface of the soil is of such a character that under no circumstances could it become fertile. This, for instance, is the case in the bleak plain coated with bitumen at the head of the Dead Sea, and in the numerous salt plains found on the continent.

(2) Regions where the climate is so cold that no crops can be cultivated. (3) Areas where the supplies of moisture are so deficient, that though the soil is not bad, it remains either perpetually barren or produces only plants of certain kinds, referred to in the lesson on the vegetation of Asia. These plants are generally wholly unfit for human food, but a few of them supply scanty nourishment to some animals specially adapted to consume them. (4) Deserts the soil of which is good, and which receive either short periodical rains or underground periodical supplies of water. These regions are annually covered with beautiful flowers and abundant pastures, but as the dry weather advances, the vegetation withers away. Such lands of alternate fertility and sterility are those frequented by wandering tribes, who time their visits so as to reach them when they supply food for their flocks. We must add that in Asia deficient rainfall is a far more common cause of sterility than the absence of good soil. It is the excessive dryness of the central regions of the continent which has reduced so large a portion of them to their present condition.

In order to understand the existence of underground sources of water in the midst of arid wastes, where often years pass without a drop of rain falling, we must briefly examine the formation of the desert surface. It consists for the most part of a sandy or gravelly layer resting on a substratum of rock which presents irregularities of surface. If a small stream should enter this region from a neighbouring hill, or from some fertile district, its waters would speedily disappear on reaching the sand, and sink down until they

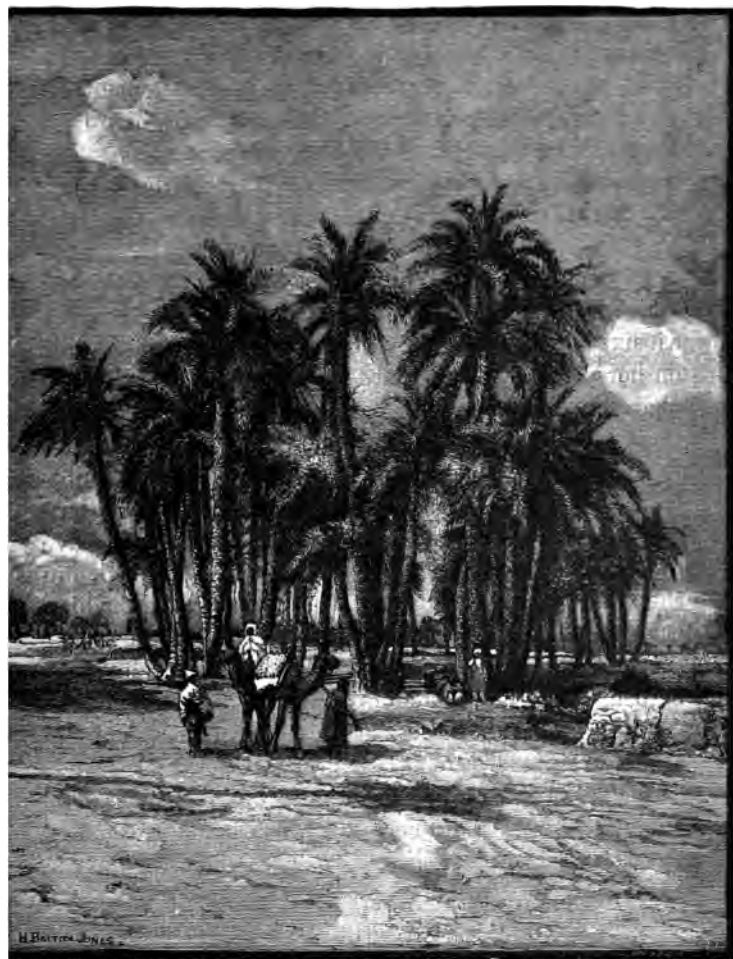
Under-  
ground  
water-  
supply.

reached the bed of rock. Here they would be protected from evaporation, and would either settle in some hollow, or would continue to percolate through some channel formed by the inequalities of the rock surface. In the first instance the water would form a well which could be reached by digging; in the second it might, at some spot where the layer of sand was shallow, bubble up and reappear at the surface as a spring.

From what has been said it may be concluded that oases will occur where there are depressions in the surface—that is, where the layer of sand or gravel is the thinnest; and this is usually found to be the case. Oases are also occasionally found in highland regions, which from their superior elevation receive rains supplied by moisture which has passed unprecipitated over the low surrounding plains. Of this character are the numerous oases of Central Arabia. In some districts, where the only moisture is received on the mountains, these are so high that it is precipitated in the form of snow, which melts so slowly that it feeds continuous streams, by the aid of which luxuriant oases are artificially watered on the lower slopes of the mountains and around their base. Such are some of the oases which fringe the Gobi Desert.

It will be readily conceived that the ordinary methods of travelling would be impracticable in traversing a desert of any considerable extent. Without a sufficient store of food and water no traveller would dare the perils of the wilderness. Nor could he without an escort safely trust himself among the fierce nomads whose grazing-grounds he might have

Means of  
communica-  
tion.



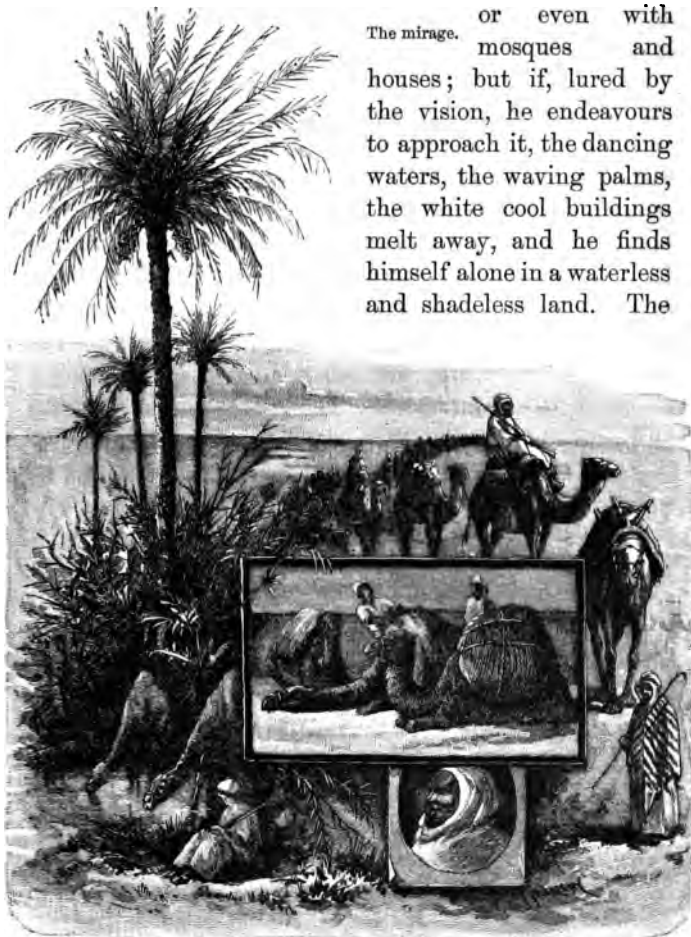
AN OASIS.

to skirt. Persons, therefore, who are desirous of traversing the desert, either for trading or other purposes, usually combine together to form a caravan. Merchants and petty salesmen are usually the principal members of a caravan, but pilgrims travelling to a holy city or to the tomb of some saint are also very numerous. The merchandise and the necessities required for the journey are carried on the backs of camels, which are harnessed in strings, sometimes of fifty or more together, each beast being attached by its halter to the rear of the one before it. Sometimes a single caravan contains as many as six hundred camels. The wealthy members ride on horseback, the poor ones walk on foot; but all alike obey the directions of a head man, who has been appointed to his position by common consent before starting. Along some of the more frequented routes, buildings, called caravansaries, are erected for the accommodation of travellers, but more frequently they have to content themselves with the ground for a bed and the open sky for a canopy. The 'poison winds' which occur in some deserts, and were referred to in an earlier lesson, are happily rare, but among the more frequent hardships of the wanderers in these arid regions are sandstorms. When these arise clouds of fine sand are blown so furiously along that every living creature has to close its eyes; and when, as is often the case, the winds are extremely hot, the sense of oppression in those exposed to them is most distressing. Even the hardy, patient camels lie down and groan aloud.

The mirage is one of the most extraordinary phenomena of the desert. Sometimes, in the midst of parched and burning wastes, the traveller sees in the dis-

tance what seems to be a sparkling sheet of water, surrounded with green trees,

or even with  
The mirage. mosques and  
houses; but if, lured by  
the vision, he endeavours  
to approach it, the dancing  
waters, the waving palms,  
the white cool buildings  
melt away, and he finds  
himself alone in a waterless  
and shadeless land. The



CAMEL CARAVAN.



mirage is a favourite theme with Oriental poets, who see in it the work of some malignant spirit. It is simply an optical illusion produced by a peculiar state of the atmosphere.

---

### 15.—VEGETATION OF ASIA.

THE vegetation of Asia is extremely varied, in consequence of the great size of the continent, and of the  
 Variety of different climates in the various countries.  
 Asiatic vegetation. That part of the continent which receives abundant rains is characterised by the number, variety, and size of its plants, embracing alike mighty forest trees, large flowering shrubs, slender creepers of fantastic shape, and huge waving grasses of the jungle; and mingling therewith a profusion of those minute growths which are apt to escape notice among the larger plants.

The luxuriance of native plants is especially seen in India and Indo-China. The vegetation and climate  
 India and of the Himalayan Mountains differ greatly on  
 Indo-China. the southern and the northern slopes. The former, watered by rain-bearing winds from the Indian Ocean, are clothed with forests unsurpassed elsewhere in size and magnificence, and are decked with a luxuriant and beautiful flora. The northern slopes, on the other hand, are exposed to the influences of winds dried in their passage over neighbouring heights, and have consequently a deficient rainfall and scanty vegetation.

In China proper cultivated plants are every-  
 China proper where supplanting the wild species. Japan  
 and Japan. has the most beautiful and varied flora, from which the

camellias with their brilliant colouring and close glossy leaves deserve to be singled out.

Even on the north-eastern coast a luxuriant vegetation clothes the banks of the inland waters. In the

North-east-  
ern coast. Amur valley flourish magnificent trees, chiefly of kinds familiar to us in England, but also of others known chiefly in warmer climes, such as the cork tree. In the peninsula of Kamtschatka are found alpine rose-bushes and the rare Kamchadale lily. Thus the combined influences of an abundant rainfall and of the warm ocean current from the south which strikes the east coast may be traced right into the regions of the far north.

But in the waterless districts of Central Asia how different is the prospect! Vegetation is here either  
Central  
regions. absent or strangely distorted and stunted. The dry air seeks to rob the plant of the little moisture which it has sucked from the soil: hence the bark grows to a great thickness, and the pith becomes saturated with various salts. The plant clothes itself with hairs and thorns, and distils gums and oils. By these means it is able to resist the fierce changes of temperature, while its thick contorted stem enables it to withstand the strong blasts of wind which sweep across the unsheltered plain.

In the interior and western regions of Siberia, lying between the central deserts and about 60° N. lat., the  
Interior and  
western  
regions of  
Siberia. vegetation resembles in many respects that of the corresponding latitudes of Europe. There wheat, rye, and barley are cultivated, the soil possessing in several districts marvellous fertility; the ground is covered with mosses and plants which bear

berries, such as the cranberry, bilberry, and strawberry; while the hill-sides are clothed with woods of pine, larch, and birch. The forests extend northwards as far as the 70th parallel, but beyond it the trees are stunted, and gradually disappear altogether, the vegetation dwindling in the coast regions to mosses, grasses, and other of the smaller plants which alone can flourish so near to the north pole.

In the fertile parts of the Iranian and Anatolian plateaus we find many of the trees and plants that are common in Southern Europe, the varieties in the vegetation corresponding to the marked differences in the elevation of the land, and the abundance of the rainfall.

Arabia has been well described as the land of deserts, for about one-third of the country is absolutely sterile, and a large part of the remainder only produces pasturage, and even that is often confined to certain periods of the year. The most productive region is Yemen, which occupies a broad belt bordering the southern part of the Red Sea. There the vegetation is much varied, and in places luxuriant. Among its products is the far-famed Mocha coffee, as well as wheat, maize, barley, tobacco, and indigo. In the Nedjd, also, there are fruitful gardens, artificially watered, and arable land, while other districts afford excellent pasturage. Of forest trees the most typical are the date and other palms, and a tree known as the sycamore of Asia.

---

16.—VEGETATION OF ASIA (*continued*).

ASIA contains, besides the cereals and trees common to it and to Europe, numerous vegetable productions of the greatest use to mankind. Let us describe a few of the best-known and most useful of them.

There are in tropical Asia several varieties of plantain which bear a highly nutritious yellowish fruit, growing in clusters, and somewhat resembling a cucumber in size and shape. Extremely productive, and requiring little attention in their cultivation, these plants are largely grown by the natives, and furnish the principal food of a great proportion of the population. The fruit of one kind of plantain is called banana, and the name is sometimes incorrectly applied to all the edible varieties.

The bread-fruit tree produces a large melon-shaped fruit full of a whitish pulp, which is consumed by the natives as a substitute for bread, and from which the tree derives its name. It flourishes only in a tropical climate.

Quinine, a drug which is invaluable as a protection from ague and in the cure of fever, is prepared from the bark of the cinchona tree, which, introduced from South America, has now become one of the most important objects of cultivation in India and Ceylon.

The palm, the most graceful of tropical trees, is represented in Asia by very numerous species, of which the most valuable are the date and the cocoa-nut palms. The date palm grows to a height of from 60 to 80 feet, and has been known

to flourish and bear fruit when 200 years old. It grows best in a dry sandy soil at some distance from the sea, and attains its greatest perfection in the cultivated districts and oases of Arabia. To the inhabitants of this peninsula the date palm is invaluable. Its fruit furnishes both them and their domestic animals with food, its trunk is used as timber, its fibres for manufacturing coarse cloth, its young leaves are eaten as a vegetable, and sugar, as well as an intoxicating liquor, is prepared from its sap. Scarcely less useful than the date palm is the cocoa-nut palm, which, unlike its relative, thrives best in the immediate vicinity of the sea. It bears large clusters of the familiar nuts which we often see offered for sale in our own streets.

The coffee-shrub is cultivated in many parts of the continent of Asia, and in Ceylon, where, however, this plant has recently become very sickly.

Cotton is obtained from the fine silky hairs which surround the seeds of a plant cultivated in many parts of Asia, but most extensively in China and India, large quantities being imported into Europe from the latter country.

Among the many magnificent timber trees of tropical Asia is teak. Its wood is very hard and durable, and is much used in shipbuilding.

Cinnamon and cloves are both valuable spices, the former being obtained from the bark of a laurel, and the latter from the flower-buds of a myrtle tree. Peppercorns are the berries of a shrub cultivated throughout Southern Asia and in the adjacent islands. The underground stem of a reed-

The coffee-shrub.

Cotton-plant.

Teak.

Cinnamon, cloves, pepper, and ginger.

like plant, growing about three feet high, yields the spice known as ginger.

Rice, a kind of grass, the grains of which furnish the rice of commerce, is one of the most valuable of all plants, and supplies about one-third of the human race with their chief article of consumption. The Asiatic countries in which it is most largely cultivated are those where the rainfall is abundant, namely, India, Indo-China, and China proper.

Sugar is obtained from several sources, but chiefly from the sap of a reed-like cane which grows in tropical countries, and reaches a height of between 8 and 12 feet.

In a wild state the tea-shrub grows from 20 to 30 feet high, but the cultivated plant is only about 6 feet high. The leaves are from 2 to 6 inches long. The tea-shrub. Tea has been drunk in China, where the shrub is principally cultivated, from time immemorial, but it was not introduced into England until the end of the sixteenth century, when a pound of leaves cost from 5*l.* to 10*l.* sterling; and for many years afterwards the duties on tea were so high as to render it a luxury within reach only of the wealthy. This plant has in recent times been very largely cultivated in Northern India, whence a large proportion of the supplies for Northern India are now obtained, and lately tea of excellent quality has been grown.

The other most important products of Asia are: indigo, a very durable and beautiful blue vegetable dye; opium, a drug valuable for medical purposes, and one smoked in great quantities for pleasure by the Chinese;

linseed and several other kinds of oil-producing seeds; and jute, which is the prepared fibre of a plant, and is chiefly used in the manufacture of a coarse kind of cloth, in which various kinds of grain and other bulky articles are packed for export. These articles, with cotton, tea, and wheat, are all largely produced in India, and form the greater bulk of our imports from that country.

Indigo,  
opium, oil-  
seeds, and  
jute.

In concluding our general remarks on the vegetation of Asia, we may observe that to this continent we owe some of the most valuable of the plants and trees cultivated in our own country. Thus barley and rye are both believed to have been indigenous to Asia; and numerous fruit-trees, including the cherry, lemon, orange, citron, almond, and olive, were introduced into Europe from the adjacent continent. The common lilac was of Persian origin, and to that country we also owe many of our most beautiful roses, while the camellia was first cultivated in China. The sugar-cane was brought into Europe by the Saracens. On the other hand, Asia is indebted to Africa for the coffee-plant, and to South America for the cinchona.

Value of  
plants  
originally  
introduced  
into other  
countries  
from Asia.

## 17.—THE ANIMAL WORLD OF ASIA.

THE continent of Asia was the earliest home of most of those animals which, when domesticated, have proved of the greatest service to mankind. Thus the horse, the ass, the reindeer, the ox, the sheep, the goat, the camel, and the only species of elephant which has been

permanently domesticated, are all of Asiatic origin. Domestic poultry (with the exception of the turkey and guinea-fowl), pheasants, peacocks, and many water-fowl came originally from Asia or the neighbouring islands.

The Asiatic lion is smaller than the African variety, and one kind is distinguished by having hardly any mane. The animal was at one time a native of the Arabian and Syrian deserts, but at present it is found only in the district east of the Euphrates, in parts of Persia and of Afghanistan, and in Gujerat in India.

The tiger has a very wide range. It is occasionally found as far north as the sources of the Obi, and is a native alike of Corea, of the plains of China, of the jungles of India and Indo-China, and of the table-lands of Iran, while there is a small but fierce variety which inhabits the central plateau of Arabia.

There are several kinds of Asiatic bears. The white polar bear, which inhabits the Arctic regions, is the largest member of its family, and has been often known to measure 9 feet in length.

Leopards are common in most of the tropical and sub-tropical parts of the continent. One kind, which is black and very rare, is found only in India and Burmah. Another Indian leopard, known as the cheetah, is trained for hunting purposes.

Wolves are found in almost every part of Asia, and jackals, hyenas, and wild dogs throughout the tropical and temperate regions. The wild dogs hunt in packs, but, unlike their domesticated brethren, do not give tongue when in pursuit of game.



The elephant, the rhinoceros, and the tapir are all natives of the south-eastern parts of the continent, the elephant being found in its wild state in  
 Elephant, rhinoceros, and tapir. Indo-China, Ceylon, Sumatra, and Borneo, and also in parts of India, where however it is becoming very rare.

The largest deer in Asia is the elk, which inhabits the northern parts of this continent and also of America, where it is known as the moose. When full  
 Deer. grown it stands about 6 feet high at the shoulders, and has large branching antlers, one of which has been known to weigh 60 lbs.

Tropical Asia contains numerous kinds of monkeys. A most remarkable ape, called the Orang-Outang, or  
 Monkeys. 'wild man of the woods,' is a native of the Malay peninsula and some of the neighbouring islands.

Among other wild animals horses are found in the central regions of Asia, and also asses, goats, and sheep. Wild buffaloes are found in India, and are remarkable for their strength, courage, and ferocity. Among the wild oxen the Yak, a native of the mountains of Tibet, is the most famous. The sable and the ermine are natives of Siberia, and are hunted for their skins, chiefly in the winter months, when their fur is in the best condition. The ermine is in reality the same animal as the English stoat, and owes the superior quality of its fur entirely to the climate, which whitens the hair.

Reptiles are rare in the dry desert regions of Asia, but in India and other tropical localities, where heat and damp are combined, they abound, and include among

their numbers some of the most venomous snakes. We may realise the danger caused by the presence of these reptiles when we hear that in 1877 no fewer than over 16,000 persons perished from the bites of snakes. Of all Asiatic reptiles the cobra is the most formidable. It is about 4 feet long, of a brownish colour above and bluish white below.

Among the birds found in Asia are eagles, vultures, and other birds of prey. There are also several members of the stork family, numerous water-fowl and fowls allied to our domestic poultry, and in the tropical regions many birds which are famous for the brilliancy of their plumage, such as the peacock, the golden pheasant, and in the Asiatic islands the beautiful bird of paradise.

In the temperate regions there are numerous birds resembling those which are common in Europe. The ostrich is found in the deserts of Arabia.

One of the most widely-spread insects of Asia is the mosquito, the pest alike of the parched deserts of Arabia, the damp plains of India, and during the short summer even of the lowlands of Siberia. The bite, though not dangerous, causes violent itching, and often painful inflammation of the skin.

Another and much-dreaded insect is the locust, swarms of which appear at intervals in the fertile districts, and rob them of every vestige of vegetation.

The silkworm, a kind of caterpillar, is, on the other hand, one of the most valuable insects to mankind, as it discharges a thin thread of silk from which some of our most beautiful clothing is made.

Asia contains several valuable breeds of horses,

among which the Arabian are the most celebrated. They are bred in the centre of that table-land, and are remarkable for their beauty, their docility, and their great powers of endurance. An Arabian thoroughbred can canter in summer for four-and-twenty, and in winter for eight-and-forty hours without stopping or requiring water, but its speed for a short distance is not equal to that of a good English racehorse.

Domestic  
animals.  
Horse.

The Asiatic camel includes two kinds—the Arabian, or single-humped, and the Bactrian, or double-humped. The camel is of the greatest service in the desert regions of Central and Western Asia and Africa, for which it is by nature adapted in several very curious ways. From the burning sand of the desert its feet are protected by callous soles, and the parts of its body which rest on the ground when it lies down by thick hard patches of skin. Its nostrils can be closed at will so as to exclude the occasional drifts of fine sand, from which long lashes protect the eyes. Fatty humps on the back supply nourishment to the rest of the body during long fasts, in the course of which these humps perceptibly diminish in size, and are only restored again to their full size by rest and food. But more interesting still is the peculiar formation of the camel's stomach, in which the animal can carry stores of water for a considerable time in so pure a state that it not only supplies the wants of the animal in the dry deserts, but also at times those of travellers, who frequently kill a camel to allay the torments of thirst.

Camel and  
elephant.

The elephant is domesticated in India, where it is

such used as a beast of burden in state ceremonials, in native warfare, and in tiger-hunting.

The Yak ox is one of the most important domesticated animals of Tibet, but it loses in this condition the silky tufts which distinguish it when wild. The Yak oxen are used as beasts of burden, and a single caravan sometimes includes a thousand of these animals.

The reindeer is invaluable to the inhabitants of the Arctic regions for its powers of endurance and for its speed, which equals about nine or ten miles an hour. It is useful as a beast of draught, while its flesh and milk supply the natives with meat and drink, and its skin furnishes them with clothing. It supports itself chiefly on a species of moss which grows in great abundance in the northern districts. During the winter it obtains this nourishment by scraping away the snow with its feet, horns, and nose. The domestic reindeer does not attain the same size as the wild one.

Dogs in the Arctic regions are used for drawing sledges over the snow. The animals are not very docile, and it is almost impossible for any but the native drivers to manage them. In China puppies are often fattened on vegetables, and serve as an article of human food.

---

## 18.—POPULATION OF ASIA.

THE population of Asia has been estimated to include more than one-half of the human race. These teeming

multitudes are, however, very unevenly distributed, the number of people in each separate region being determined mainly by the character of the rainfall. Thus the inhabitants of the well-watered lands of India, Indo-China, China proper, and Japan are estimated collectively to form at least three-fourths of the entire population, while Arabia and the central and northern parts of the continent are very thinly peopled.

Number,  
distribution,  
and general  
character of  
the popula-  
tion.

The character and habits of the population are also mainly dependent on physical causes. In the tundras and treeless steppes the inhabitants are chiefly nomads, because these regions are not sufficiently productive to support a settled people; while in the rich fertile lands the natives are devoted to agricultural pursuits, and are enabled to satisfy their wants throughout the year without changing their abodes. 'Speaking generally, the hunting and fishing state in Asia is confined to the northern zone, reaching from the Frozen Ocean southwards to about the 60th parallel; the nomad pastoral tribes occupy the heart of the continent as far south as the 35th parallel, besides the arid plains of Irania and Arabia. Elsewhere, especially in Japan, China, Indo-China, and Anatolia, the populations have long formed settled and more or less civilised communities on an agricultural basis.'

Certain parts of Asia are in many respects admirably fitted by nature to be the homes of famous nations.

The broad central belt of the continent lies within the temperate zone, which, as is proved by the whole course of history, is the zone most favourable to the vigour and intelligence of man-

Lethargy of  
the people of  
Asia, and its  
causes.

kind. Moreover, the eastern and western temperate regions afford ample facilities for maritime intercourse with other countries not far distant—an advantage which, next to a bracing climate, tends more than any other natural one to promote the prosperity and civilisation of a people.<sup>1</sup> Accordingly, in the earliest ages of which any records have been preserved, these regions and the neighbouring land of Egypt were the homes of the only civilised nations of the known world.

But in modern times a strange lethargy has spread through the entire population of Asia. With the exception of the centres of trade with Europe, nearly all the Asiatic cities have an appearance of ruin and decay, some of them being entirely deserted; while in many others once crowded by a dense and flourishing population, only comparatively few and miserably poor inhabitants remain. In several countries the extensive canals and other works, built with enormous labour to provide the irrigation essential to the productiveness of the soil, have been allowed to fall into decay, and their massive remains in the midst of the silent desert now only serve to remind us of the busy multitudes who in ancient times dwelt in the land, and of the plenteous harvests which rewarded their toil. Modern inventions, even of the most useful kinds, are strangely neglected. India is the only Asiatic country which possesses railways of any great length, the others on the continent being the comparatively short lines in some of the Russian and Turkish provinces, and in Japan. So helpless have the

<sup>1</sup> The influence of a temperate climate and of maritime intercourse is explained in the book of this series on *The British Colonies and Dependencies*.

Asiatic nations become, that for centuries past all the social changes which have taken place on the continent and every advance in knowledge or intelligence may be traced to the spread of European ideas. It is also a remarkable fact that at the present moment one-half of Asia and one-third of her population are under the rule of one or other of two European powers, namely those of Great Britain and Russia.

It would be difficult to explain all the causes which have arrested the civilisation of Asia and rendered her people so feeble. Some of them are, however, not far to seek.

The interior of Asia presents a marked contrast to the eastern and western temperate regions, as it is

Aggressions  
of the in-  
terior and  
barbarous  
tribes.

wholly cut off from the inestimable advantages of maritime intercourse. By nature also it is only adapted to be the home of wandering and pastoral tribes, whose habits of life, though of a kind to make them hardy and warlike, are fatal to the formation of industrious and settled communities. Before, however, we refer to the influence on Asia of the bold and restless tribes of the interior, we must digress to remind our readers of the marvellous changes in the character of warfare brought about by the use of gunpowder. Victory now generally becomes the prize of progressive nations who are rich enough to supply their soldiers with the latest and most destructive firearms, and whose officers are highly trained in the skill required to secure for their troops the most advantageous positions for battle. But formerly, when success in war depended more upon bodily strength, personal prowess, and superior numbers, the civilisation of a country was frequently thrown back by the inroads of barbarous though very brave races.

To this danger the more fertile regions of Asia were terribly exposed. Urged by a natural desire for plunder, and to better their lot, the hardy tribes of the interior poured down in irresistible hordes into the civilised countries of their neighbours, and even pushed their way into India through the difficult passes by which alone that peninsula can be entered by land.

The long succession of these disastrous incursions into one or other of the fairest regions of the continent continued for more than two thousand years, and no words can adequately describe the miseries inflicted on the inhabitants of the lands thus laid waste.

---

### 19.—POPULATION OF ASIA (*continued*).

OTHER evils besides those already referred to have arisen from the varieties of race in Asia. The continent is  
Varieties of race. peopled by several distinct races, some of whom differ so much in character from one another that they lack the common sympathies and interests which are essential to unite them together into powerful and harmonious nations.

The great majority of the people are descended, with more or less intermixture, from one or other of the three most famous families of mankind, respectively known as the Aryan, Semitic, and Mongolian races. Their distinctive characteristics, as well as their present distribution through nearly all the most habitable parts of the world, have been elsewhere described.<sup>1</sup> We shall there-

<sup>1</sup> See the lessons on the Races of Mankind in the book of this series on *The British Colonies and Dependencies*.



fore here only refer to their distribution in Asia. The principal home of the *Aryans* is in India, where, under the name of Hindoos, they form three-fourths of the population; and as most of the European nations are also of this race, the term Indo-European is often applied to it. In Afghanistan and Persia there are likewise a large number of Aryans of more or less pure descent. Arabia is the stronghold of the *Semitic* race, which is also numerous in the western highlands of the continent, and to it belonged the Assyrians, Phœnicians, and Israelites of ancient times. In nearly all the rest of Asia the *Mongolian* family forms the basis of the population, its main divisions being the Chinese and Japanese, the inhabitants of Indo-China, the people of Tibet, Mongolia, and the various Turkish and Tartar tribes. The Mongolian is the race to which have belonged most of the central and northern nomadic tribes, including the Scythians of olden times, of whose barbarous customs the ancient Romans could not speak without a shudder; and also the Huns, who in the fifth century ravaged the fairest parts of Europe under Attila, their terrible leader, known in history as the 'Scourge of God.'

The nomads of the Gobi Desert, who in the tenth century rose to fame under their able but sanguinary leader, Genghiz-Khan, also belong to the Mongolian family. Civilised nations were powerless against these wild warriors, who, trained to endurance by the necessities of a roving life amidst rugged mountains and desolate steppes, could remain day and night in the saddle, and were capable of fasting for long periods uninjured. Climate, too, affected them but little, for

in their own land they were accustomed to the greatest extremes of temperature. The horses of the cavalry, which formed the chief strength in the Mongol armies, had been, like their masters, prepared by their previous habits for the emergencies of warfare. Nimble, sure-footed, hardy, and always accustomed to graze in herds, it was easy to train them to field manœuvres; and so strong, yet flexible, was a Mongol line of cavalry, that it was compared to a rope or chain, bending and curving, but never parting.

Some idea of the wide extent of Genghiz-Khan's conquests may be gathered from the following short account. Having conquered Mongolia, he scaled the great wall which fortified the frontier of China, and subjugated all the country north of the Hoang-Ho, including the capital, Pekin. The victorious Mongol now pressed westward into the vast region stretching between Lob Nor and the Sea of Aral. 700,000 of his cavalry burst into Khiva in 1219; Samarcand and Bokhara, and all the chief cities of the land, were taken. Next, his hordes overran Persia, driving out the last of the Seljuk kings; they crossed the Caucasus into Russia, and routed the Russians in a great battle near the Sea of Azov: after destroying Moscow they carried victory into Poland and Hungary. Nor was Genghiz-Khan less successful in the south, for Afghanistan and all the districts of India as far as the Sutlij were laid waste. But though guilty of terrible atrocities in warfare, Genghiz-Khan, like several other rulers of his race, showed considerable wisdom in the government of his people. He encouraged men of learning to frequent his court, exempted physicians from taxation, made severe laws

to punish several prevailing kinds of immorality and disorder, established a postal system, and a military police—so efficient, that it was said persons could travel through the whole of his vast empire and among the wildest of his subjects without fear or danger. Subsequently a descendant of Genghiz-Khan embraced Mohammedanism, and having by his conversion gained the support of the Turkish hordes in the central plains, he commenced a career of conquest which has made his name famous throughout the world. This man, Timur Bey, more commonly known as Tamerlane, was, although a descendant of Genghiz-Khan, not in the direct line, and he never assumed the supreme title, but continued throughout his life to own a nominal obedience to the head of his family, the Grand Khan, who was, however, a mere puppet in his hands. Tamerlane reunited under one sway the provinces which had formerly been conquered by Genghiz-Khan, but which had since his death regained their independence. In the course of his career he invaded India, swept with his wild horsemen like a fever wind of the desert over Syria and Mesopotamia, almost annihilated the Ottoman power in Western Asia, penetrated into the very heart of Russia, and was just preparing for a war with China, when death put an end to his exploits. His victories were accompanied by the most revolting cruelties, for to the conqueror's indifference to human life he added the persecuting zeal of a Mohammedan fanatic. The inhabitants of cities which he had taken were ruthlessly massacred; men who refused to adopt his creed were flayed or burned alive, and the line of his march in a conquered country

was frequently marked by pyramids of skulls. Another famous Mongol conqueror was Baber, a great-grandson of Tamerlane, who, having made himself master of Eastern Irania, crossed the Indus and defeated the native princes in a great battle near Delhi, about the beginning of the sixteenth century. This city became the capital of the Empire of the Great Mongols, or Great Moguls, which he afterwards founded in Northern India. His successors subsequently lost their possessions in Irania, but continued to reign in India until the beginning of this century. Lastly, we must not forget that the present empire of Turkey in Asia and Europe was founded by a branch of the Mongolian race.

Besides the races enumerated there are in the poorer lands of the continent various tribes of whose affinities we know little, but some of them are supposed to be the descendants of the aboriginal inhabitants, and to have been driven into their present homes when the richer lands were occupied by more powerful rivals. The chief abodes of these tribes of unknown lineage are in the eastern parts of Siberia, South-west China, and the hilly and forest districts of India.

Few of the races, however, can boast of an absolutely pure and unmixed lineage.

## 20.—POPULATION OF ASIA (*continued*).

BUT greater evils have arisen in Asia from religious differences than from diversities of race. Differences of religion. Judaism and Christianity have comparatively few adherents in this the continent of their birth;

Zoroastrianism, once the faith of Persia, now only claims a few scattered followers. A form of superstition known as Shamanism is prevalent among the tribes of Eastern Siberia. Its votaries profess a vague belief in the existence of a Supreme Being, but in reality they only worship the powers of nature, and in their imagination associate every stream, valley, or mountain with either a good or evil unseen spirit, to whom their prayers are addressed. The total number, however, of the Shamanists is not great, and they are gradually being converted to the faiths of their neighbours.

In Asia the great majority of the population belong to one or other of three predominating religions, known respectively as Brahminism, Buddhism, and Mohammedanism. This fact alone, however, would convey a very imperfect idea of the religious divisions on the continent. The professed followers of each of these faiths are subdivided into a number of sects, some of which are estranged from one another by their bitter fanaticism. Unfortunately, also, the religious differences do not always correspond with the diversities of race, and thus they often separate into distinct classes the inhabitants of a country who are of the same descent.

Brahminism is the oldest of the three predominant religions of Asia. Its disciples are almost confined to India, where it is the faith of three-fourths of the population. The doctrines of this religion are so mysterious that it would be difficult briefly to explain them; nor indeed are they understood by many of its professed followers, most of whom are sunk in various commonplace kinds of idolatry. To the rulers of India Brahminism has been a source of many difficulties, as it not

only sanctions several cruel rites, but also the mischievous system known as *caste*. The following is supposed to be the history of this institution. About thirty-nine centuries ago India was conquered by a branch of the Aryans, by whom the peninsula was soon peopled. Proud of their lineage and personal appearance, the Aryans sought to preserve these characteristics by rules framed to discourage marriage with the older races of the country. As, however, children had already been born of such marriages, the people were separated into distinct classes, according to the purity of their descent from the conquering race; and so complete became the alienation that a person of higher caste would not eat, marry, or pray with one of lower grade. Once established, the system of caste was developed in quite new directions, and the original castes based on lineage were subdivided into numerous others, depending in many cases on such trivial distinctions as the occupations of their respective members. Human ingenuity could hardly have invented an institution more sure to hinder co-operation and familiar companionship among a people.

After Brahminism had for ages prevailed in India, and about five hundred years before the birth of Christ, a reformer of princely parentage, who received the title of Buddha, or the 'enlightened one,' arose and proclaimed in the city of Benares the faith which has since been called after him. The supernatural doctrines of Buddhism are of the mysterious nature which seems to have a peculiar charm to the dreamy imagination of Eastern philosophers. But like those of Brahminism, they proved to be incomprehensible to the great mass of the people, so that most of the Buddhists have wandered

far from the teaching of their original master. On the other hand, the moral precepts of Buddha are of a kind which find an echo in the conscience of mankind, and indeed correspond to those which prevail among the most enlightened modern nations. He proclaimed that the first duties of life are to conquer our natural selfishness, to be benevolent and in charity with all men, to respect our parents, to be truthful; and he especially enjoined the humane treatment of animals. Among his followers, the distinctions of caste were to be banished, for he held that a man is only better or worse than his neighbours according to the purity of his thoughts and deeds. Recommended to the people by its charitable precepts, and the relief which it afforded to its followers from the oppressive system of caste, Buddhism remained for about 800 years the popular religion of Northern and Central India, but for reasons unknown to us it was at last exposed to such crushing persecution that few followers of this faith are left in the country of its birth. Elsewhere, however, it has spread far and wide, and is now estimated to number more followers than any other religion in the world. In various and more or less corrupted forms Buddhism is the prevailing faith of Ceylon, Burmah, Siam, China, Nepal, Tibet, Mongolia, and of some of the tribes of Siberia.

We now come to the third of the remarkable religions of Asia—a form of faith which, in the seventh century A.D., was instituted by Mohammed, a native of Arabia, where many of the people had relapsed into idolatry. Its creed is short and simple: ‘There is one God, and Mohammed is His prophet.’ Little trouble have his

followers taken to propagate their faith by the gentle arts of persuasion. Their fierce battle-cry has ever been 'Believe or die,' and their reckless courage was sustained by the beautiful wives and various sensual delights promised as the rewards in another world of all those who died fighting for the cause. Some of the earlier followers of Mohammed could, indeed, boast of having acquainted themselves with the knowledge accumulated by the most enlightened nations of previous times, and of having preserved and diffused it in what are called the Dark Ages, when the civilisation of many parts of Europe and Asia was threatened by an extraordinary combination of circumstances. But, on the whole, Mohammedanism has done little for the permanent benefit of mankind, while in many countries it has completely checked the progress of civilisation, and in Asia has been the cause of the most cruel and desolating wars recorded in the disastrous annals of religious strife.

Both polygamy and slavery are sanctioned by its teaching, and to the growth of free institutions its overbearing and intolerant character has always proved fatal. Occasionally a Mohammedan prince, rising superior to the extravagant luxury and the despotic principles of his youthful training, has governed his people with justice and wisdom ; but under degenerate successors his kingdom has invariably been, sooner or later, again subjected to crushing oppression and misrule. The Mohammedans are now divided into two sects, known respectively as the Sunnites and Shiites, the former being distinguished for acknowledging the succession of the four caliphs to whom Mohammed bequeathed his *temporal* supremacy. This schism is



not without political importance, as the two sects hate one another too bitterly to unite readily together for a common purpose.

The stronghold of Mohammedanism in Asia is in the regions lying south of  $45^{\circ}$  N. lat., and west of  $70^{\circ}$  E. long.; but it has also numerous votaries in India, among whom are several of the native princes; nor is the religion without followers in several other parts of the continent.

## 21.—POPULATION OF ASIA (*continued*).

LET us now briefly trace the effects of the causes referred to upon the welfare and progress of the most important countries of Asia.

After vicissitudes in their prosperity unsurpassed in the saddest pages of history, the energies and life of the inhabitants of the western temperate regions of Asia have been completely crushed under the blighting rule of the Turks. These conquerors are not only descendants of the semi-barbarous nomads of Central Asia, but are also Mohammedans. Probably the influence of their intolerant religion more than the taint of their ancestry has tended to form the characters of their rulers, but both causes have combined to unfit them for the government of a people. Although they now adopt many of the outward garbs of civilisation, oppression and misrule have always followed in the train of their conquests.

When we turn to the eastern temperate regions of Asia, we find them occupied by China, one of the three *largest empires* in the world. At a period so remote

that no trustworthy records of it exist, the most fertile part of this empire, namely, the region now known as China proper, was peopled by a branch of the Mongolian race. In China, however, the exceptional advantages afforded by the rich soil and navigable rivers for the pursuits of agriculture and commerce formed the inhabitants into settled and progressive communities. At a time when Europe was still sunk in barbarism, the Chinese had advanced far in the knowledge of several of the arts and sciences. But as their wealth increased the possession of their plenteous lands was more and more coveted by the sons of the desert, at whose hands the Chinese suffered a succession of depredations and partial conquests, which continued up to a comparatively very recent period in their history. So great became their dread of the inroads of their nomadic kindred, that in A.D. 214 they actually fortified their land frontier by a wall, of which the stupendous length, as measured along all its windings and double lines, is equal to 2,000 miles, or one-twelfth the circumference of the globe.

Nor have these been the only evils to which the Chinese have been subjected by the wild character of the interior of Asia. This has proved such a serious hindrance to their overland communications with the civilised nations of the Western world, that until the Europeans established active commercial intercourse with the coast of China during the last century, her people remained almost wholly ignorant of the strides in knowledge and the marvellous inventions made by the most progressive nations of modern times. Accordingly the Chinese lacked the emulation which is inspired by *honourable rivalry between enlightened nations, and.*

firmly convinced that they had nothing more to learn, the whole people sank into self-complacent apathy and stagnation.

India, again, is another of the most populous countries of Asia which has been affected by the repeated invasions of the central nomads. Almost all the northern parts of the peninsula were conquered in the sixteenth century by a Mohammedan branch of the Mongols. Although some of their princes ruled with a noble and impartial desire to promote the welfare of all classes of their subjects, the conquest proved most disastrous. Internal warfare, only interrupted by brief and rare intervals of peace, continued to distract and impoverish the people, until the British finally restored comparative tranquillity by possessing themselves of the government.

The distinctions of caste in India have been somewhat relaxed to meet the demands of modern civilisation, but they yield very slowly to its influence, and still perpetuate the evils of the diversities of race in which they originated.

We may add to this brief survey of the population of Asia that for more than a century past the central nomads have ceased to be a terror to the neighbouring nations. Under the influence of a variety of causes, into which we cannot enter, they have been vanquished, divided into separate communities, and finally reduced to a state of helplessness, a large part of their territory having fallen more or less directly under the rule of the Emperor of China.

---

**22.—POPULATION OF ASIA** (*continued*).

WE shall be better able to appreciate the disadvantages under which Asia has been placed, as well as the main causes of the superior prosperity and power of Europe, if we draw a contrast between the two continents.

Contrast  
between  
Asia and  
Europe.

With the exception of her extreme northern regions, Europe enjoys the blessing of a temperate and bracing climate, and nearly the whole of the continent is adapted to agriculture; whereas only the central belt of the eastern continent lies within the temperate zone, and of this belt a large area is occupied either by high mountains, inhospitable deserts, or pastoral lands capable of supporting only wild wandering tribes.

Moreover, the heart of Europe is occupied by regions which are not only highly productive, but also adapted by nature for manufacturing and commercial industries. Accordingly we find that although the Roman Empire in the days of its decline was overrun by the so-called barbarians of the interior of Europe, they had been so well prepared by their previous habits and ideas for settled life, that they readily adopted the best features of the civilisation of the countries they conquered. From them this civilisation spread to their original abodes and kindred, and in modern times the central nations of the continent have been among the most progressive and enlightened of its people. On the other hand, as has been shown, the physical features of the heart of Asia are of such a character that they proved for ages *at once a barrier* to dealings between surround-

ing nations and a fastness where fierce semi-barbarous tribes always awaited a favourable opportunity to pour down upon the lands of their civilised neighbours.

Again, the varied and broken coast-line of Europe affords far greater facilities for maritime enterprise and intercourse than that of any other continent.

Another point of contrast is that the greatest part of Europe has been from remote ages inhabited by the Aryan race, to which belonged the conquerors of Rome; and though marked differences in language and customs have grown up between its separate branches, their common affinity fits them better than the more distinct races of Asia to mingle together and form harmonious communities.

Lastly, while religious differences have too often given rise in Europe to internal discord and fierce international warfare, all her great nations except the Turks acknowledge the same religious Master, whose precepts no less than His example indicate to us the only sure means of diffusing a pure faith. Accordingly, when the nations of Europe began fully to understand the beneficent character of Christianity, mutual toleration prevailed between them, and the religious truths they held in common softened their political relations with one another. In Asia, on the contrary, the predominant religions differ so widely in character that they continue to estrange their respective votaries, while Mohammedanism still remains the most intolerant faith in the world.

Briefly, therefore, we may say that the main causes which have retarded the civilisation and progress of Asia have been—(1) The physical features of

the interior and the aggressive character of its inhabitants; (2) The differences of race, and still more of religion. These have combined to restrict intercourse of the widespread and familiar kinds essential to the diffusion of knowledge on a continent, and to the growth of mutual sympathies, common interests, and congenial customs among the inhabitants of the separate states. Without these advantages free institutions cannot be developed, and in their absence it is impossible to found united and powerful kingdoms upon a basis of enduring prosperity.

Within the last twenty years, however, a new era has opened in Asia. The continuous conquests of the

Fruits in  
Asia of  
European  
conquests,  
commerce,  
and science.

Europeans and the rapid extension of their commerce have not only opened the eyes of the subjugated nations to the true causes of their weakness, but have also rudely shaken the self-complacency of the independent races. The introduction into Asia of railways, and more especially of the electric telegraph, also created a profound sensation. Often the natives are filled with awe and wonder at unexpectedly finding, on the summit of a lonely mountain pass or in the heart of the desert, the slender suspended wire through which—as they have heard—men, separated by many thousand miles of land and water, are noiselessly and almost instantaneously communicating with one another.

Even the conceit of the stolid Chinaman is somewhat abated when he hears the English in Hong-Kong read in the local press, of events which have taken place in the most distant parts of the world only a few hours previously. *It is therefore not at all surprising*

to find that the people of the East are more ready than of old to adopt Western ideas and inventions.

Asiatic youths have lately been sent to the universities of Europe and to the English navy to be instructed; while older men visit the most progressive countries of the West to learn how they are governed. Chinamen flock in thousands to the United States to make their fortunes, and on their return home explain to their fellow-countrymen the various ways by which the Americans have attained to such great prosperity.

The genius of modern science has also made travelling much easier than it used to be, and consequently the number of Europeans who resort to the East is annually increasing. Western missionaries, inspired by self-denying zeal, declare the truths of Christianity to Mohammedans, Buddhists, and Hindoos; while merchants, ever anxious to increase their gains, push their civilising commerce into every corner of the continent where money is to be made.

Throughout the East old faiths, established habits of thought, and time-honoured customs are slowly but surely yielding to foreign influences; and ere long it will be impossible, save in the history of the past, to study the political and social condition of Asia as it existed before this transformation began.

---

### 23.—POLITICAL DIVISIONS OF ASIA.

IN treating of the political divisions of Asia it will be convenient to group them under the following heads: <sup>1</sup>

<sup>1</sup> India is described in an earlier book of the series, on *The British Colonies and Dependencies*.

A. The Mohammedan states of the Western Asiatic highlands, including :

1. Turkey in Asia.
2. Arabia.
3. The countries of the Iranian plateau :  
Persia, Afghanistan, Beluchistan.

B. The Russian political system, including :

1. Siberia.
2. Russian Turkestan, and the vassal states  
in the territory still called Independent  
Turkestan.
3. The highlands of the Caucasus.

C. The Buddhist states of Eastern Asia, including :

1. The Chinese Empire.
2. Indo-China.
3. Japan.

D. The Malay Archipelago.

### TURKEY IN ASIA.

The countries included in Asiatic Turkey are Asia Minor, a part of Armenia, a part of Kurdistan, Syria, Mesopotamia, the western coast regions of Arabia, and a part of the east coast where it borders on the Persian Gulf.

Asiatic Turkey is thus bounded everywhere by the sea except towards the east, where its frontier-line is conterminous with the boundaries of Asiatic Russia and of Persia, the converging-point of the three empires being found in Mount Ararat.



Towards the south, independent Arabia, occupying the whole interior of the peninsula, intervenes between the Turkish possessions on the east and west coasts. The total area of the empire is rather more than nine times that of Great Britain.

On the other hand, the population of Asiatic Turkey is somewhat less than that of our island, but it includes a greater diversity of nationalities and races than any country in Europe. The Mohammedan Ottoman Turks are, both in numbers and position, the most important element. They represent the official class throughout the empire, and form in Asia Minor and Armenia the bulk of the agricultural population.

Next to the Ottomans in numerical order rank successively the Greeks, Arabs, Kurds, Armenians, and Syrians.

The Christian Greeks are found chiefly in the towns of Asia Minor, where they have monopolised all the professions, while the commerce has to a great extent passed into their hands and those of the Armenians.

The Arabs are met with chiefly in Arabia, Palestine, and Mesopotamia, and form either a settled agricultural or a nomadic pastoral population, according to the nature of the country.

The name of the warlike Kurds occurs repeatedly in connection with the early history of Asia, but the race did not attain to its most brilliant period of national existence till the days of Saladin. This famous warrior, the chivalrous opponent of *Richard Cœur de Lion*, was of Kurdish birth.

Establishing himself as Sultan of Syria and Egypt, he bestowed all the chief offices upon men of his own race. Until quite recently the Kurdish chieftains still wore chain armour and used the scimitar, as in the days of the Crusades. Part of the Kurdish population, inhabiting the valleys of their native land, is settled and agricultural, but the fierce nomadic tribes of the highlands look with contempt upon their brethren of the villages. The Kurdish nomads are found beyond the limits of their own highlands in the steppes of the Anatolian plateau and in Northern Syria. Although this people are Mohammedans the women are treated well among them, and may attain even to the rank of chieftains.

The Armenians, an Aryan race who boast a history which goes back to the days of Abraham, are descended from the inhabitants of what was  
Armenians. formerly the kingdom of Armenia. At times this country was independent; at other times in its history it was subject to the various powers who successively aimed at supremacy in Western Asia. It is now divided between Persia, Turkey, and Russia, and its inhabitants are widely scattered, Armenians being found in all the chief cities of the East, as well as in many towns of Southern Europe. Converted to Christianity in the third century, they have had to undergo frequent and severe persecutions from Turkish and Persian conquerors. The Armenian Church, which is governed by patriarchs, has now been taken under the protection of Russia.

Syria is still the home of the descendants of the Phœnicians and other Semitic nations who formerly inhabited these regions. The enterprising spirit of the

mèrchant-sailors of antiquity may still be traced in their modern representatives, who have developed very keen trading instincts. A great proportion of the population are Christians, and in one province, that of the Lebanon, they form so large a majority that the Turkish Government has been obliged to entrust its administration to a Christian governor. The Syrian Christians, who call themselves Maronites, are very intelligent and industrious.

Besides the races which we have enumerated, Asiatic Turkey contains Jews, Circassians, Turkomans, and representatives of other nationalities ; but we have only space here to mention more particularly a strange tribe called the Druses, whose deadly struggles with their neighbours the Maronites attract frequent attention. They live in the highlands bordering the Syrian desert. Everything about this people is mysterious. Their origin is unknown and their religion a secret, the higher truths being divulged only to a chosen class, admission into which is to be gained by great holiness of life.

From what has been said it will be seen that several of the races in Asiatic Turkey are Christian, but the proportion they bear to the Moham-  
Proportion  
of Moham-  
medan and  
Christian  
population.
 medan population is very small, being only about one to five.

---

## 24.—TURKEY IN ASIA (*continued*).

THE government of the Turkish Empire is nominally *an absolute* despotism, the Sultan basing his right

to the allegiance of his subjects upon his position as Khaliph, or successor to the prophet Mohammed.

**Government.** Practically his power is subject to many limitations, as he has to forbear alike from offending public opinion in Europe and the prejudices of the Mohammedan population in his own dominions.

**Jurisdiction.** Turkish jurisdiction is entirely founded on the Koran, and the administration of justice throughout the empire is to a great extent vested in the *Ulema*, a body of theological lawyers who expound the precepts of the Koran. The members of the *Ulema* have always been among the bitterest enemies of any change likely to promote the welfare and happiness of the people, and have shown themselves particularly opposed to education in subjects other than elementary arithmetic and the precepts of the Koran. They rightly judge that a little knowledge of history, or even a slight acquaintance with Western ideas and events, would rapidly undermine their own personal influence.

For purposes of government the countries included in Asiatic Turkey are divided into *vilayets*, or provinces, **Division into vilayets.** named for the most part after the chief town, each of which is governed by an officer called the *Vadi*. These again are subdivided into smaller districts.

Taxation is managed on the farming-out system: that is, the government hands over the collection of the taxes to certain men who are bound to pay **Taxation.** into the treasury a fixed sum of money, whether they obtain more or less from the district assigned to them. To make their own gain out of the arrangement these *tax-gatherers* try to squeeze the last farthing

out of even the poorest peasant, who thus is forced to pass his whole life on the brink of starvation. Industry and enterprise are therefore discouraged, for whether a man makes much or little out of his land, he knows that the whole value of the produce beyond his bare subsistence goes into the clutches of some grasping official.

There is no hope of redress from the law, for the judges accept bribes without fear and without shame, and the poor man therefore has no chance of a favourable decision.

It is not likely that the tax-gatherer will spend his ill-gotten gains upon the improvement of the country, nor does the central Turkish Government apply to this purpose the portion of the taxes remitted to Constantinople. Accordingly good roads and other useful public works are hardly known anywhere in Asia Minor. There are only three short lines of railway in the kingdom, and such highways as exist are infested by robbers; while on the great rivers the only steamers are supplied by the private enterprise of Europeans.

Especially since the opening of the Suez Canal traffic seems to be passing more and more away from a country in which the conveyance of merchandise is so costly and hazardous as to render it almost unprofitable. Cities like Damascus, once centres of trade, are becoming every year more poverty-stricken. Careful irrigation is in many parts of the empire necessary to make up for the absence of rain, but this work is so much neglected that the regions which once supplied the wants of a *vast settled* population are now only capable of sup-

porting a few nomadic tribes. In the city of Bagdad, though it stands upon the banks of the Tigris, there is so complete an absence of reservoirs, canals, and water-pipes, that the inhabitants have to be supplied with water in skin bags; and the surrounding country, fertile in the days of the Assyrians, is now a barren waste.

Thus we see how bad government destroys the happiness and prosperity of a people. It also defeats its own aim, for an impoverished and thinly-peopled country, even though heavily taxed, will not yield as much revenue to the treasury as if, with lighter imposts, it were populous and well farmed.

In Asiatic Turkey this truth is particularly striking, for the natural resources of the country are very great, and in bygone times supported a much larger population.

The soil is so rich that wherever there is a sufficient supply of moisture magnificent crops of wheat, maize, rice, rye, and oats are produced without the aid of any of those manures with which our husbandmen are obliged to fertilise the land. Tobacco, opium, and the cotton-plant are among the vegetable productions, to the growth of which the climatic conditions of parts of the empire are especially favourable. Fruit-trees are abundant in all the cultivated districts, and raisins, figs, and dates rank among the chief exports of Asia Minor. Mulberry trees flourish throughout the northern countries, and silk is produced in great quantities. Magnificent forests clothe the slopes of the Taurus and other ranges, while even in the comparatively desolate steppes sheep and goat farming might become a *very profitable* employment.

Resources.  
Vegetable  
production.

Nor is the wealth of the empire confined to its surface. Untold treasures lie beneath. Coal, ironstone, ores of copper and of silver, springs of bitumen and petroleum, sulphur, rock salt, marble and granite quarries, from which the kings of olden days drew the materials for splendid palaces and temples, may be mentioned among the mineral resources of the empire. Timber is another natural product which is almost valueless through mismanagement. The magnificent forests of Asia Minor are being recklessly destroyed by an ignorant peasantry, who wastefully fell the finest trees to get from them a single beam or pole.

Planting young wood in the place of that which has been cut down, a process called 're-forestation,' is an art unknown in this improvident land.

---

## 25.—TURKEY IN ASIA (*continued*).

NEGLECT or misuse of the gifts of nature has not always characterised the rule of empires that preceded the Turkish dominion. Few countries have nobler associations with the past than Turkey in Asia. Everywhere we find evidences of bygone prosperity. Between the districts of Damascus and Aleppo is an upland region—a mere blank upon our maps; yet here the Arab recognises the sites of countless old cities.

In the vicinity of Mosul, a town on the Tigris, are the vast mounds which mark the site of Nineveh. Nineveh, once the chief city of the Assyrian monarchs. Many of the most splendid monuments of

their civilisation are now safely preserved in the museums of Europe, especially in the British Museum.

In Mesopotamia, another group of mounds indicates that here once stood Babylon the Magnificent.

**Babylon.** The Arabs have in great part cleared away the accessible remains, using the bricks of palaces to build their pigmy dwellings, and the eye is now greeted by little else than 'dust covered with mounds, over which the wind drives the desert sand.'

Upon the outskirts of the Syrian desert, covering an area of three square miles, stand the stupendous ruins of Palmyra, 'The City of Palms.' **Palmyra.** Situated upon the eastern slope of a mountain range, its mighty columns still appear, in the first beams of the rising sun, of a surprising whiteness. Its glorious 'Temple of the Sun' is more than half a mile in circuit, and with a double row of columns, of which a few are still standing, must have presented amid the dark foliage of the palm trees a spectacle such as we can hardly realise in our dreams.

The chief towns of the empire in Asia Minor are Smyrna on the Ægean Sea, Trebizond, a fortified port on the Black Sea, Angora, renowned for the manufacture of fabrics from the hair of the goats pastured in the surrounding steppes, and Broussa, situated at the foot of Mount Olympus, one of the great centres of the production of silk.

The towns of Erzeroum and Diarbekir, each giving its name to a large vilayet, are respectively the capitals of Turkish Armenia and Turkish Kurdistan. **In Armenia and Kurdistan.** In Syria, we may mention among the more important towns Damascus; Aleppo, noted for the



manufacture of brilliant-coloured stuffs; Jerusalem; and  
 the two flourishing ports of Beyrout and  
 In Syria. Tripoli, both situated on the coast of that strip  
 of land which was formerly Phœnicia.

In Turkish Arabia we need only note the sacred  
 cities of Mecca and Medinah; Jiddah, the principal port  
 of the peninsula; and the port of Mocha, from  
 In Arabia. which 10,000 tons of the purest coffee are  
 annually exported.

Among the towns of Asiatic Turkey a few at least  
 deserve more detailed notice.

Smyrna, the chief port of the empire, owes its com-  
 mercial importance to its position at the head of a gulf  
 twenty-two miles broad at the entrance, and  
 Smyrna. so deep that ships of heavy burden can ap-  
 proach close to the quays. Smyrna is one of the seven  
 cities which claim the honour of having been the birth-  
 place of Homer, and was one of the seven Christian  
 Churches mentioned by St. John.

Damascus, a town which has existed since the days  
 of Abraham, stands on the banks of a stream which rises  
 upon the outer slope of the Anti-Lebanon  
 Damascus. range, and empties itself, after a course of twenty  
 miles, into an inland lake. This stream and the numerous  
 canals connected with it have transformed the arid Syrian  
 desert here into a fertile oasis, in the midst of which,  
 encircled by gardens and orchards, lies Damascus. The  
 view of the city seen from the Anti-Lebanon Mountains  
 is described as surpassingly beautiful. Tapering  
 minarets and swelling domes tipped with golden cres-  
 cents rise above the white terraced roofs, or lift their  
*glittering tops* high above the green foliage of the

gardens. In the centre of the city may be seen the Great Mosque, and near it the grey battlements of the old castle. The illusions produced by a distant view are, however, apt to vanish on entering the dirty narrow streets, with their heaps of refuse and their bad smells. On each side rise blank walls, for so jealously do Orientals guard the privacy of their houses, that a narrow doorway and one or two small grated windows alone are all that break the forbidding exterior that is exposed to public gaze. But unattractive as these buildings appear to the outsider, the interiors are often extremely beautiful. An open court, where the scented orange and lemon trees cast cool fantastic shadows on the tessellated pavement, and where the splash of water in the bright marble fountains makes unceasing music, forms the principal feature in the dwelling-place of a wealthy Mussulman. 'All the apartments open into the court; and on the south side is an alcove with a marble floor and a raised dais round three sides covered with cushions.' As in most Eastern towns, the active life of Damascus is chiefly concentrated in the bazaars and khans. 'The bazaars of Damascus are narrow covered lanes, with ranges of open stalls on each side. Each trade has its own quarter or section, where may be seen Manchester prints, Persian and Turkish carpets, French silks, Sheffield cutlery, amber mouthpieces for pipes, antique china, Cashmere shawls, Mocha coffee, Dutch sugar, Damascus swords, and tobacco from Lebanon and Bagdad.' The khans are large buildings or public marts where the leading merchants meet to expose their wares for sale. The prosperity of Damascus has declined considerably *since the opening* of the Suez Canal, before

which event it was the centre of the trade between Bagdad and the West.

In the midst of a stony and barren country dotted by a few olive trees and vineyards lies Jerusalem, the city hallowed by its associations to so many millions of the human race. Crumbling ruins, Arab huts, and here and there the dome and minaret of a Mohammedan mosque are the chief characteristics of the modern town. The population, which includes a large proportion of Jews, is swollen at Easter by crowds of pilgrims, who come hither from all parts of the world.

## 26.—ARABIA.

TOWARDS the north, where the Arabian merges imperceptibly into the Syrian desert, there is no definite frontier, but a line drawn across the head of the peninsula from the mouth of the El Arish to the mouth of the Tigris may be accepted as an approximate boundary. West, south, and east, Arabia is washed by the sea. Its area is estimated at rather more than 960,000 square miles, and the number of its inhabitants at a little over three millions, or about three to the square mile. This population consists mainly of Arabs, but in the Turkish provinces there are some Ottomans; while in the south negroes, either slaves or free, and half-breeds of mixed negro and Arab descent form important elements. There are also a few Jews in the larger towns.

*The Arabs, a race of Semitic descent, are divided*

into two classes—the dwellers in settled localities, comprising six-sevenths of the population; and the

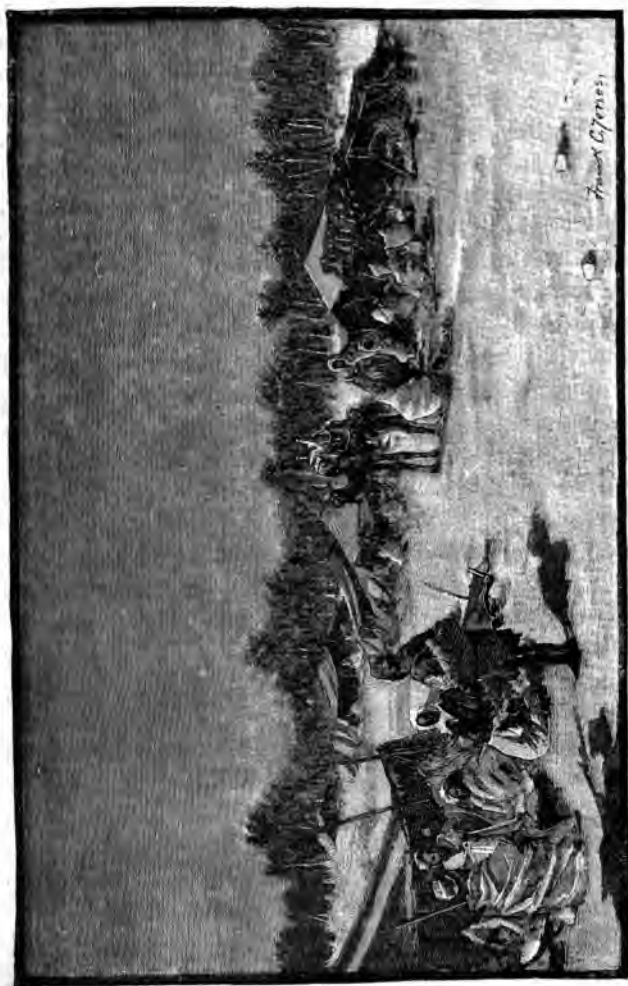
Arabs. Bedouins, or dwellers on common lands, forming the remaining seventh. The settled Arabs are chiefly occupied with agriculture and commerce.

In many respects they compare very favourably with other Asiatic races. Dignified in manner, Settled population. hospitable after their own fashion, less intolerant than the Turks, and free from many of the sensual vices which degrade their Persian and Ottoman neighbours, their superiority is further shown in their treatment of women, who among them enjoy a degree of freedom unknown in most Mohammedan countries, being permitted to go about unveiled, and even to take a share in entertaining the guests of the household.

The lot of a slave is also not so hard in Arabia as elsewhere, for while in bondage his master is seldom cruel to him, and at the end of seven years the custom of the country allows him to regain his liberty on condition of embracing Mohammedanism. On his emancipation he is generally presented by his former owner with a little land, or with some other means of earning his livelihood.

Widely different from their brethren of the towns and villages are the Bedouins. Reduced by necessity to the position of nomadic herdsmen, they are Bedouins. characterised by the ignorance of all wandering races; but on the other hand, their observing faculties are developed to an extraordinary degree.

The Bedouins are divided into numerous tribes, each of which has its own summer and winter camping-ground, *although occasionally a failure of pasturage or*



ENCAMPMENT OF BEDOUINS.

*Frank C. Jones*

water may oblige one to invade the territory of another, and thus give rise to one of those feuds which are so common among these children of the desert. The plundering of travellers is regarded as the exaction of a fine which must be paid for entering Bedouin territory without permission.

Nominally Mohammedans, the Bedouins pay in reality but little respect to the stern laws of the Prophet, and mingle many superstitions of their own with the faith he taught.

At present, as we have seen, the west and part of

Govern-  
ment.

the east coast are in-  
cluded in the Turkish

Empire. In the south-west, the little province which derives its name from the port of Aden is under British control. The remainder of the peninsula is independent, and is split up into various states governed by native rulers, called either sultans or emirs. Thus the whole south-eastern corner of the peninsula is subject to the Sultan of Oman, while in the central plateau of the Nedjd we find the powerful sultan of the Shammar nation disputing for supremacy with the ruler of the *Wahhabee State*.



A NATIVE FROM NEAR ADEN.

Arabia is a poor country, and as the resources which it does contain are still to a great extent undeveloped

its trade is not very important, and is largely  
 Trade. in the hands of Jews and Indian merchants.

This condition of Arabian commerce is attributable to peculiar causes, and not to apathy on the part of the natives, for naturally the commercial instinct of an Arab is so strong that he will sooner 'chaffer' away the handkerchief on his head, or the camel on which he rides, than return from a journey without having effected something in the way of business. The principal exports are camels, sheep, hair, wool, coffee, and pearls. Slaves from Africa still form an important item among the imports.

The chief towns are Mecca, Medinah, Jiddah, Muscat,  
 and Aden, now a British possession, and of  
 Towns. great importance as a place of call for vessels trading to the East, and as a military and naval station. .

## 27.—THE ARABIAN OR SARACEN DOMINION.

BEFORE the time of Mohammed, who was born in A.D. 570, the people of Arabia were almost forgotten by the outer world, and were divided into a number of independent tribes between whom there was no genuine feeling of common nationality. But by the declaration of a faith based on the sublime idea of the existence of a Supreme Being, and by commanding his followers to go forth and spread it with the sword, Mohammed succeeded in uniting nearly all the Arab tribes under a common standard, and laid the foundations of an empire *destined after his death to extend to such wide limits*

that it spread terror throughout the whole of Christendom. His successors, who were called Khaliphs, were regarded with a kind of religious awe as the representatives of the prophet, and laid claim to the obedience of the whole Mohammedan world, as the Roman popes did to that of the whole Christian world. Unfortunately Mohammed left no directions as to the manner in which his successors were to be chosen, and this omission gave rise to endless disputes, some of his followers maintaining that the Khaliphs should be elected by the whole body of the faithful from among themselves, and others that the office should be hereditary in the family of Mohammed. Finally the dissensions on this subject led, after the supreme power had been in turn acquired by several rival dynasties, to the disruption of the Khaliphate. Internal disturbances did not at first check the external conquests of Islamism, and within a century of Mohammed's death the Saracen warriors had robbed Constantinople of all her Asiatic possessions except those in Asia Minor, had overthrown the second Persian empire and made Iran a Mohammedan country, had conquered Egypt and the North African coast, and had planted their standard in the peninsula of Spain. The capital of the Saracen Empire was at first Mecca, and then Damascus in Syria. Finally, towards the end of the eighth century, the seat of government was moved to Bagdad, but the Khaliphate was now no longer undivided, a rival dynasty having succeeded in establishing its independence in Spain. From this time the empire began to show symptoms of decay. Rival Khaliphs sprang up in the different provinces, each of whom declared *himself* the sole earthly representative



of the prophet, the only true commander of the faithful ; but most of them were ready in practice to abandon these wide claims, and to content themselves with founding independent monarchies. Thus the Fatimite family extended their sway over Egypt and Syria, and even over the west coast of Arabia, which has ever since remained a province of Egypt and has shared in its political changes.

Another source of weakness was the bodyguard with which the Khaliphs of Bagdad surrounded themselves. It consisted for the most part of hired troops drawn from among the Turkish tribes of the Turkestan lowlands who had become Mohammedans. These mercenaries gained such power that they elected and deposed the Khaliphs at their will. Turkish adventurers also, while calling themselves the servants of the Khaliph, succeeded in gaining independent authority over many of the fairest provinces of the empire.

At last in 1258 the Saracen dominions were overwhelmed by an invasion of the heathen Mongols. Bagdad was taken and sacked, and the Khaliph was put to death. One member of his family escaped to Egypt, where, although deprived of all temporal power, he still maintained his right to be regarded as the prophet's representative, and consequently the religious head of the Mohammedan world. At a later period a descendant of this man ceded his claim to a Turkish prince, the ancestor of the present Sultan of Turkey. It must therefore never be forgotten in political questions that, while the Sultan is the temporal ruler of Turkey and her provinces, he claims to be the spiritual head of the *whole Mohammedan world*. The services rendered by

the Saracens to civilisation have often been overrated. The truth is that they had a marvellous power of adapting to their own needs the wisdom, the discoveries, and the arts belonging to the many nations whom they conquered. Poetry and romance were, it is true, of native growth, and the Arabs made important discoveries in astronomy, botany, chemistry, medicine, and manufacturing arts ; but in mathematics, Arabian geometry was of Greek, and Arabian algebra of Indian, origin. Arabian philosophers and physicians owed most of their knowledge to the ancient books of the wise men of Greece, and Greek influences are to be detected in their astronomical studies. The architecture for which the Saracens were so justly celebrated, and of which so many splendid monuments remain, never flourished in Arabia itself, where there are neither grand edifices nor stately ruins. It was an adaptation of the various styles of the conquered countries refined and beautified by Arab taste. We may further remark that many of the learned men who formed the glory of the Saracen Empire were not of Arab birth, but traced their descent to one or other of the conquered races. The Arabs of modern times have never done anything to distinguish themselves in art, literature, or science.

---

## 28.—THE COUNTRIES OF THE IRANIAN PLATEAU.

THE Iranian Plateau derives its name from having been at a very early period peopled by the Iranian branch of the Aryan family ; but even in those days its population included many other elements. United into a *monarchy*, first by the Medes and then by the

History of  
Irania.

Persians, it has since the breaking up of the empire of Darius undergone many changes. Flood after flood of foreign invasion has swept over it. It has been the meeting-ground, often the battle-field, of the principal Asiatic races, all of whom are represented among its inhabitants. From time to time some conquering dynasty has formed it into a single state. Thus it has been the seat of a second Persian, of a Parthian, of a Turkish, a Mongol, and an Afghan monarchy ; but dismemberment has always quickly followed the union. Distinctions of creed and blood divide its population, and in most cases the race which has for a short time established its supremacy has by intolerance and oppression only succeeded in alienating still more widely the sympathies of the subject people.

The plateau was last united under one sceptre in the beginning of the eighteenth century by the famous

Nadir Shah. Nadir Shah, a native of the Persian province of Khorasin. After a youth full of adventure,

during which he was successively a prisoner in Turkestan, a high official in his own country, and then an outlaw and the leader of a robber-band, he finally became the deliverer of his country, and overthrew the Afghan dynasty, which had established its authority over Irania, and had made itself hated throughout Persia by its cruelty and oppression. At first Nadir placed on the throne a member of the former royal family of Persia, but afterwards made himself shah. His kingdom included the whole of Irania, part of Turkestan, Armenia, and the district south of the Caucasus. One of his most remarkable exploits was the invasion of the territory of the Great Mogul, who had murdered his ambassador.

Nadir marched into India, took and sacked Delhi, and returned laden with booty, including among other things the famous Koh-i-Noor diamond now in the possession of the Queen of England. In his later life the Persian prince grew cruel and tyrannical, and finally was assassinated by one of his officers. Since his death Irania has remained divided into the three countries of Persia, Afghanistan, and Beluchistan. Persia itself was broken up into numerous petty states, and was torn asunder by the quarrels of the various governors, until toward the end of the last century a Turkoman warrior reunited it, and founded the family to which the present shah belongs. In the beginning of this century Georgia, the district south of the Caucasus, was wrested from Persia by the Russians.

Although the Afghans had for some time occupied a prominent position among the races of Irania, and had, as we have seen, given a dynasty to the plateau, yet the existence of Afghanistan as a separate country only dates back to the death of Nadir, after which event the Afghan chiefs chose Ahmed Khan, one of their countrymen, to be their leader. The history of the young monarchy has been a troubled one, stained with the records of civil war, of assassination, revolt, and treachery. Afghanistan, besides internal troubles, has been continually at strife with one or other of the bordering states. The last war was with Great Britain, and as a result of it we have obliged the Amir to accept a British resident at Cabul.

Beluchistan, the early history of which is very obscure, was for a *short* time after the death of Nadir

subject to Afghanistan, but one of the native princes finally succeeded in asserting his independence and in establishing his authority over the other tribes of the country. The present Khan is his descendant. Beluchistan has entered into several treaties with Great Britain, and the Khan has since 1877 become a feudatory of the Queen of England, who has the right of using his territories for military purposes if necessary.

---

### 29.—PERSIA.

PERSIA is bounded on the north by the Russian territory south of the Caucasus, by the south coast of the Caspian, by the Russian possessions east

*Boundaries.*

of the Caspian, and by the Turkoman country. Towards the east it borders on Afghanistan and Beluchistan, towards the south on the Persian Gulf, and towards the west on the Turkish

*Area.*

Empire. Its area is over 600,000 square miles, and its population about four millions, or six inhabitants to the square mile. This population is very

*Population.*

Iranians still form the principal element and the ruling class. The modern Persians are outwardly refined in manner, and still possess that keen sense of the beautiful which once rendered the architecture and literature of their country famous, and that love of magnificence which distinguished their ancestors in the days of Xerxes and Darius. The hardier virtues of the early Persians before they rose to fame have, however, been lost under the *influence of long centuries of despotism and cruelty.*

Sensuality and general moral degradation now rank among the national characteristics. In religion the Persians belong to the Shiite sect of the Mohammedan faith, and are bitterly hated on that account by their Turkoman neighbours, who are Sunnites. For years Northern Persia has been exposed to raids from these wild tribes, who, swooping down upon the open country, carry off men, women, and children, and either keep them prisoners until they are ransomed by their friends or send them off to the slave markets of Bokhara. The traveller Bellen found the open country dotted over with a peculiar kind of round tower which served the people and their flocks as a refuge when the Turkoman horsemen came in view. Since the advance of Russia on the northern frontier, and the increase of her influence, these raids have become much less frequent. Besides the settled population Persia contains a few nomadic tribes, of Kurdish, Arab, Tartar, and Mongol descent. They are found chiefly in the outlying provinces.

The government is an absolute despotism under a monarch called the Shah. Usually the eldest son succeeds, but the reigning prince has the right to select as his heir any other member of his family. Until quite lately it was the practice on the accession of a shah to put to death all his brothers, in order to prevent family conspiracies troubling the new monarch's reign. The country is divided into provinces, the governors of which are appointed by the king. Of these provinces the largest is that of Khorasin, which includes the whole of North-eastern Persia. Each province is farmed out to the governors, and the people are oppressed by their extortion.

Govern-  
ment.

Here, too, the development of the country is little cared for by the Government or its officials. Irrigation is neglected, and the desert sands are allowed to creep onwards, stifling all vegetable life and even burying whole towns. Railroads there are none, and the ordinary highways are so bad that wheeled conveyances cannot pass along them, and merchandise can only be transported by means of beasts of burden. Thus numerous difficulties restrict the commerce of a country which is by no means without natural advantages. Among the principal exports are rice and other grain, cotton, tobacco, silk, and wine. The chief manufactures are carpets, silk fabrics, shawls of goats' hair, and copper wares. Manufactured European cotton and woollen materials form an important item among the imports.

The principal towns are all situated in the western valleys, while the sandy eastern wastes contain but few places of note.

Teheran is the present seat of government. Ispahan was the capital for a long period during the Middle Ages, and still contains many fine buildings, evidences of its past importance.

Shiraz is remarkable for the production of a wine highly valued throughout Persia, and for the beauty of the gardens which surround the town. Upon the Persian Gulf is its port, Bushire.

Mashad the 'Holy' is the religious and trading centre of Eastern Persia. Next to Mecca and Kerbela this is the most hallowed spot in the Moslem world, for here reposes under a gorgeous

gilded dome their most revered saint, the Imam Riza. The principal mosque is one of the finest in the East, and is gorgeously decorated, its gates being covered with gold and studded with precious stones.

Tabriz. Tabriz is the largest, and commercially the most important, town in the country.

### 30.—AFGHANISTAN AND BELUCHISTAN.

*Afghanistan* includes, besides the north-eastern corner of the Iranian Plateau, that part of Turkestan which lies south of the Upper Amur Daria. On the north it is bounded by Independent Boundaries. Turkestan, on the west by Persia, on the south by Beluchistan, and on the east by India.

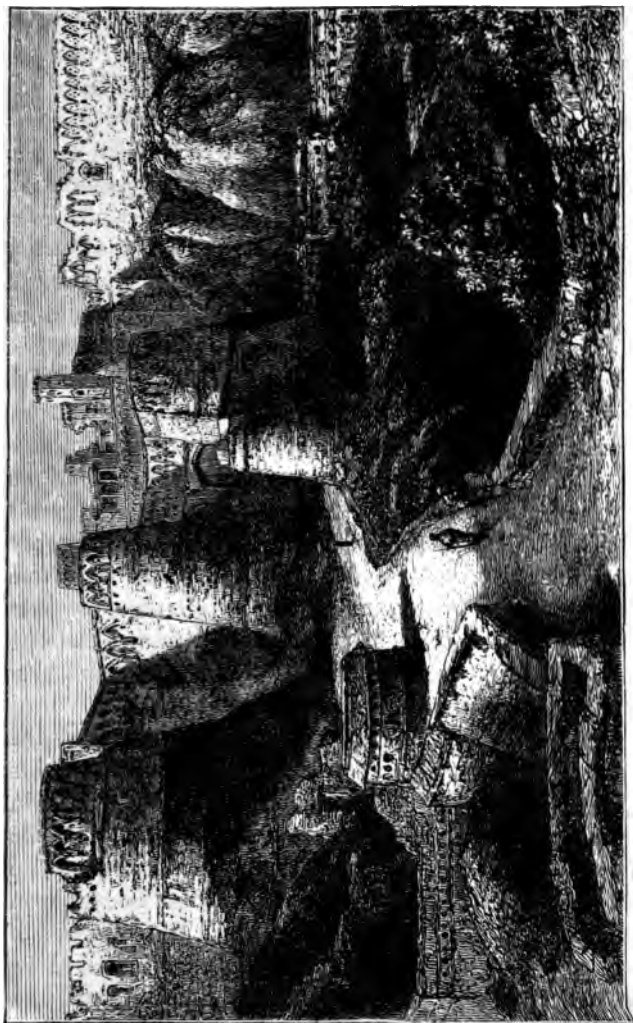
It has an area of 300,000 square miles, and a population of about nineteen inhabitants to the square mile.

Afghanistan is the home of many races, and has a large number of Turkoman and Persian inhabitants, but the Afghans are, as the name of the country indicates, the ruling people. Their origin is uncertain, some ascribing to them an Aryan, others a Semitic source. They are a fine race of men,—tall, well-formed, athletic, with features of a slightly Jewish cast, and serious, almost harsh, expression. An Afghan herdsman in his rough sheep-skin coat, with his long, unkempt locks, dark eyes, and sinewy limbs, presents an appearance striking both from its picturesqueness and its wildness. The townsmen look rather more



civilised, as they attend carefully to their dress and hair. Travellers vary so greatly in their description of the moral characteristics of this people, that the following account must be received with caution :—‘ They are said to be ferocious and treacherous in warfare, cruel to their enemies, vindictive, often treasuring the memory of an insult for years until a fitting occasion presents itself for vengeance.’ ‘ Their quarrelsome character is declared by a mere glance at their villages and fields, which bristle in all directions with round towers. These are constantly occupied by men at enmity with their neighbours in the same or adjoining villages, who, perched up in their little shooting-boxes, watch the opportunity of putting a bullet into each other’s bodies with the most persevering patience. The fields even are studded with these round towers, and the men holding them most jealously guard their lands from trespass by anyone with whom they are at feud. Nothing belonging to their enemies is safe from their vengeance. If even a fowl or a bullock strays from its owner, it is sure to receive a bullet from the adversary’s tower. So constant are their feuds, that it is a well-known fact that the village children are taught never to walk in the centre of the road, but always to creep stealthily along under cover of the wall nearest to any tower. It has even been observed by natives themselves that their cattle, as if by instinct, follow the same example.’

Among the virtues of the Afghans may be mentioned their courage, their love of independence, and their hospitality. They are said to be kind to their dependants, *and capable of great generosity.* Like most other Asiatic



GHUZZEE GATE (AFGHAN TOWN).

nationalities, the Afghans are divided into a settled and a nomadic population. Agriculture is the chief occupation of the settled inhabitants, who live either in towns or villages; but as in all lands where property and life are insecure, isolated farms are never to be seen, no one venturing to live in solitude. The settled population also forms the bulk of the standing army, which was established in the middle of this century. It is a curious fact that no Afghan 'will keep a shop or learn a handicraft,' apparently regarding such employment as derogatory. The nomadic tribes are mainly engaged in pastoral pursuits or in the transport of goods, for which purpose they are employed by Persian and Hindoo merchants. One tribe of the Suliman Mountains carries on commercial transactions to a considerable extent on its own account.

The Afghans are Mohammedans. As a rule they are not intolerant except to the Shiite sectarians, for whom they entertain a far more bitter animosity than for members of quite another faith. Among the non-Afghan population in the towns are some nature-worshippers, besides Jews and Hindoos.

Nominally Afghanistan is subject to a ruler called the Amir, but the authority he exercises over his subjects is everywhere very slight, and is in many regions openly set at defiance, while in some, as in the highlands of Kafiristan among the eastern Hindu Kush Mountains, it has never even been acknowledged by the inhabitants. The collection of the taxes among the mountain tribes has often to be enforced by arms. Tribal organisation is so strong as to prevent the existence of any real national unity.

Religion.

Govern-  
ment.

Whether settled or nomadic, every Afghan considers himself bound rather to his tribe than to his country. A common foe may for a time unite the whole race under one standard, but more generally the different tribes are at feud with each other, and the land is distracted by the disputes of the chieftains. An old Afghan chief well described himself and his countrymen when, in answer to some one who had been pointing out the advantages of a settled administration, he said, 'We are content with discord, we are content with alarms, we are content with blood; but we will never be content with a master.'

*Beluchistan*, on the south-eastern corner of Irania, is inhabited by two distinct races, the Brahuis and the Beluchis. Although the name of the country is derived from the Beluchis, the Brahuis form both the ruling race and the chief and aboriginal element in the population. Their origin is unknown. The country is nominally governed by the Khan of Kelat, but the tribal organisation which prevails here as in Afghanistan gives great power to the chieftains. The religion of the country is Mohammedan. The trade, which is unimportant, is mainly in the hands of Hindoo merchants. The chief town in Beluchistan is Kelat, the capital.

It has already been shown how hordes of fierce invaders have at various times overrun the fertile plains of India. All these invaders came from the west, and it is from that direction that any future invasion by land could be attempted.

Near the western frontier of Afghanistan lies the well-fortified town of Herat, that has had to stand the

Routes to  
India from  
Turkestan.



BRITISH ARMY PASSING THE BOLAN PASS.

attacks of all invaders, for, surrounded as it is by high mountains, it keeps watch and ward over the road to India. Now let us follow the routes that must be taken by an army starting from the south of Independent Turkestan to attack India. Herat must first be taken, for no invading army dare leave it unassailed in its rear. From Herat there are two routes. The northern one passes from Herat across a mountainous and most difficult country, inhabited by fierce tribes to whom every foreigner is a foe. It leads through these mountains by rocky defiles, called the Bamian Gate, to Cabul, a distance of about 450 miles. From here the road lies along the deep valleys leading from Cabul to the Khyber Pass, by which the great western mountain barrier of India may be passed. The Khyber presents almost insurmountable difficulties to the passage of an army. It consists of gloomy gorges, deep defiles, and precipitous rocks, which in places nearly meet overhead, and intensify the gloom of the deep gullies into which the sun never shines.

It was in this pass that the unfortunate British army was massacred in 1842, and only one man escaped to tell the tale. Having passed the Khyber, a good road runs to Peshawur, which is connected with the great railroads of India.

The other route from Herat runs through a hilly country to the south-east for a distance of about three hundred miles to Candahar, and is much easier for the passage of troops than the northern road from Herat to Cabul. Candahar is a strong town, and possesses considerable trade. If the railway be completed which would connect it with the great lines of India, this

town will probably become the centre for all the trade passing from the countries of the Iranian Plateau. From Candahar the route leads to Quettah, the frontier town of Beluchistan. This is the most advanced station



BELUCHIS LYING IN WAIT IN THE BOLAN PASS.

of British troops to the west. The road crosses the great mountain range by the Bolan Pass, to the entrance of which a railroad runs from the town of Shirkapur. It was through the Bolan Pass that the army which met with such a tragic fate in the Khyber entered *Afghanistan*.

We have thus described the two great roads that an invading army might take to reach India. Of these routes the southern is the longer but much less difficult.

But, supposing an army to have surmounted all the difficulties of a long march through a mountainous country, to have overcome the opposition of the fierce mountain tribes, and to have passed the natural fortifications of the mountain range, there still remains that inner barrier to our Indian dominions—the river Indus—which must be crossed by an invader, whether he enters the country by the northern or the southern route.

Afghanistan was well described by the Duke of Wellington, when he said that ‘it was a country in which a small army would be annihilated and a large army would starve.’

---

### 31.—RUSSIA IN ASIA.

If kingdoms were named after the natural features which distinguish them, Russia might be fitly described as the Empire of the Plains. From the Baltic and Black Seas on the west to the Pacific on the east her dominions stretch over all the vast lowlands of the north. The Urals, which lie between her possessions in Europe and Asia, form as ineffectual a barrier to conquest as they are an unreal division between the two parts of one continent. But of a very different nature are the highlands—the Caucasus, the Afghan mountains, the Pamir, the Thian Shan and Altai ranges which border the southern edge of this great plain. *Russia has naturally occupied their northern slopes, and*



in the eastern portion, where the average elevation is less and the formation is rather that of a plateau, she has extended her rule far beyond these boundaries; but elsewhere, wherever she has much overstepped the natural limits of her empire, or threatened to do so, political difficulties have at once arisen. The Ottoman Turks, the English, and the Chinese are the nations with whom she will have sooner or later to reckon in any attempt to extend her dominion far to the south. Less formidable than these, and yet by no means despicable foes, are the Persian and Afghan races of the Iranian plateau.

The Russian Empire in Asia is bounded on the north by the Arctic Ocean, on the west by Russia in Europe and by the Black Sea, on the south by

Boundaries.

Turkey in Asia, Persia, Independent Turkestan and by the Chinese Empire, on the east by the Sea of Japan, the Sea of Okhotsk, and the Behring Sea. It thus includes the whole of Northern Asia, the Aralo-Caspian depression and the district of the Caucasus between the Black Sea and the Caspian.

Its area exceeds by more than 2,000,000 square miles that of Europe, and it forms the largest

Area.

continuous extent of land possessed by any power in the world.

The beginning of Russian conquests in Asia dates back to the end of the sixteenth century. At that time

History of  
Russian  
conquests  
in Asia.

some Russian tribes named Cossacks, who were settled at the mouth of the Don, having offended the Czar, were obliged to flee before his avenging general. One band of these *adventurers*, led by a man named Germak, crossed the

Urals and subdued the native principality of Sibir in the Irtysh valley. Germak then sent an embassy to the Czar describing his conquests as effected in that monarch's name, and asking for assistance. Conciliated by this policy, the Russian Emperor granted his request, and although Germak was shortly afterwards killed in an engagement with the natives, the Russians steadily pursued the course of conquest which he had entered upon. One by one the Mongoloid peoples of Siberia were subdued, the erection of Russian forts everywhere marking the progress of Russian arms, until at last, in 1639, within 70 years of Germak's request for the Czar's protection, the whole country between the Urals and the northern shores of the Sea of Okhotsk was included in the Czar's dominions.

Kamtschatka was annexed towards the end of the same century, but the valley of the lower Amur did not become a Russian province until 1860, when it was finally ceded to her neighbour by China.

The Russian Empire has also been extended in Central and Western Asia, and is now divided into Siberia, Central Asia—which includes Russian Turkestan—and Transcaucasia, the district south of the Caucasus. The states of Independent Turkestan have only recently become to any great extent subject to the control of the Russian government.

### Siberia.

The little Tartar principality of Sibir, the conquest of which formed the beginning of the Russian Empire in Asia, gave its name to the whole vast region of *Siberia, which stretches from the Urals to the Pacific,*

from the Turkestan and Chinese frontiers to the Arctic Ocean. Though its area is greater than that of Europe, its population is not equal to that of the seven most populous counties of England, hardly amounting on the average to two inhabitants to the square mile. Against 4,000,000 of Europeans there are only 1,000,000 of natives, and they are diminishing in number every year.

The Europeans, who are either Russians or Poles, inhabit the towns and the agricultural districts along the highways and waterways of the country. They consist of the exiles from European Russia, of the police charged with their supervision, of the official class, and of the descendants of the Russians who have settled in the country and are called Siberiaks. The practice of sending exiles to Siberia began towards the end of the 16th century, and at first the prisoners were purely political, but now the country has become a vast convict establishment. Its exiles still include many persons condemned for political offences; but by far the greater number are criminals, some of whom would in England have been punished with death. The method of transporting prisoners was formerly very cruel, and even now the march is accompanied by many hardships, although much has been done to improve the conditions under which it is accomplished. The prisoners march twenty miles a day, walking for two days and resting on the third. At intervals along the route are temporary prisons where they sleep, and in the towns are larger prisons with hospitals attached, where those who have fallen ill can remain. The number of Russians annually deported is between 17,000 and 20,000, and they *are divided into two classes*—those who absolutely lose

all their rights, and those who lose them only partially. To the first class belong the worst offenders. A man thus condemned can hold no property, do nothing legal in his own name, and even his wife is allowed by the law to consider her marriage no longer binding. A wife may, however, if she choose, accompany her husband, and be provided by the Government with prison food and accommodation. These exiles are usually condemned to prison and hard labour for a long period, sometimes for life. The second class consists of offenders who, having expiated their faults by a short period of imprisonment, are released and settled as colonists in the country under police supervision, and of others who undergo no imprisonment, but take a similar position as settlers at once.

---

### 32.—RUSSIA IN ASIA (*continued*).

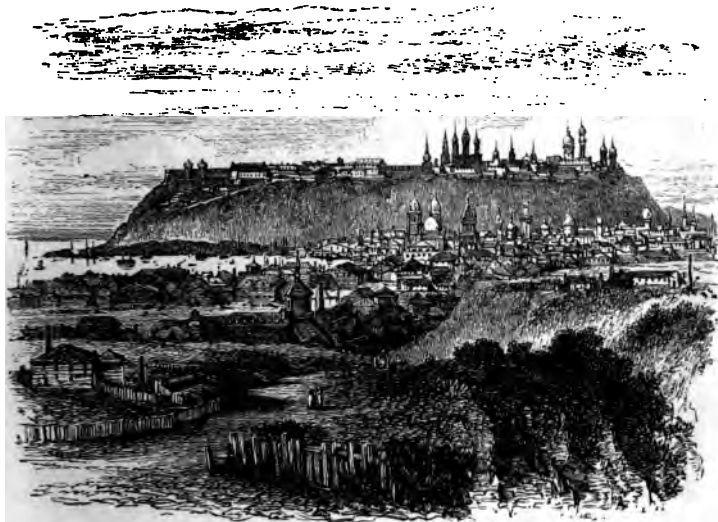
THE native races in Siberia belong mostly to the Mongoloid stock, although there are a few in Eastern Siberia which have never been classified. One of the Native races of Siberia. best known of the Arctic races are the Samoyeds of Western Siberia. They live in little huts made of sheets of birch bark attached to poles. In winter they cover their dwellings with skins outside and line them inside with fur, thus creating a snug shelter under which they can lie protected while the wild snowstorm is sweeping over the desolate expanse of the tundra. When the north wind has spent its fury the hunter emerges, clad in handsome furs, armed with bow and arrow, or with a musket, and, mounted on broad

snow-shoes, he moves noiselessly over the snow in pursuit of his prey. The sledges of the Samoyeds



STEEPS OF SIBERIA.

are admirably constructed, not only for traversing the snow in winter, but also for crossing the marshy tundra in the summer. Reindeer constitute the great wealth of this people, and provide them alike with beasts of draught, with food, milk, and clothing. Dogs are sometimes substituted for drawing the sledges.



TOBOLSK.

Another remarkable Siberian race, and the only one which is not dying out, is the Yakut, which inhabits the central Lena basin. The Yakuts are so hardy that at a temperature far below freezing-point the women may be seen standing, bare-armed, gossiping together in the market-place of Yakutsk. Under the tuition of

the Russians they are becoming skilled artisans and farmers, and have also developed such keen trading instincts that they have gained for themselves the name of the Jews of Siberia.

Although several of the Siberian races nominally



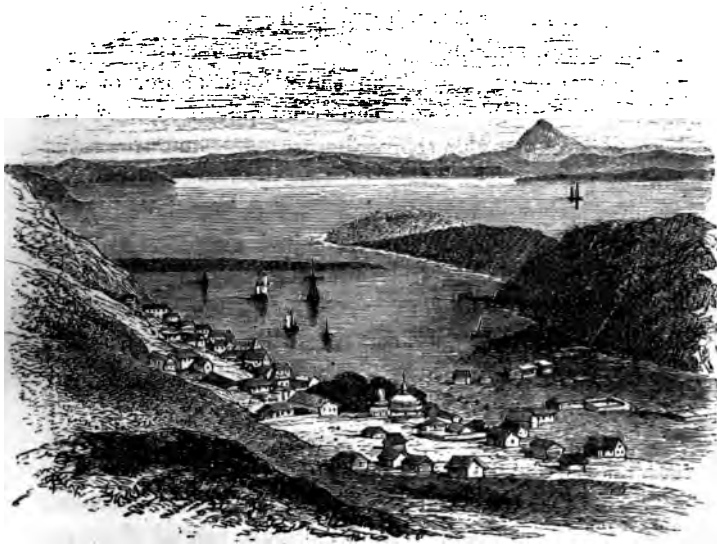
RUSSIAN TRAVELLING IN SIBERIA.

profess either Christianity or Buddhism, they are for the most part Shamanists at heart.

Drunkenness is a prevailing vice both among the Russians, who swallow large quantities of raw brandy, and among the natives, who, when unable to obtain this spirit, drink a fermented beverage obtained from a *peculiar sort of fungus*.

Siberia is divided into the two viceroyalties of Western and Eastern Siberia, each presided over by a governor-general, and these are subdivided into provinces under governors.

In spite of its climate Siberia is in many respects a rich country. In the valley of the Yenesei there is a



PETROPAULOVSK IN KAMTSCHATKA.

district where the yield of wheat in proportion to area is not surpassed in abundance in any other parts of the world, and where the pasturage also is most luxuriant. The rivers swarm with fish to such an extent that the fisherman's chief anxiety in casting out his net is lest it should break with

Resources  
and trade.



the weight of the draught. The forests yield magnificent timber. The mines, especially those of the Altai Mountains, furnish gold, silver, copper, and iron; and some yield the emerald, the topaz, and other precious stones. One of the most remarkable products of Siberia is mammoth-ivory, obtained chiefly from the tusks of a large extinct hairy elephant, the remains of which are found in great numbers along the shores of the Arctic Ocean and in the neighbouring islands.

The absence, except on the Pacific shore, of any sea-coast available for commercial purposes, and the ice which closes the rivers for so many months, must always prevent the trade of Siberia from developing greatly, although the Russians are doing their best to open up the country. The principal exports are gold, silver and other minerals, and furs. Tea packed in the form of hard bricks from China is one of the chief imports. It is largely consumed by the inhabitants, and is conveyed across Siberia along the great commercial highway of the country to Russia.

The chief towns are Tobolsk on the Tobol, the capital of Western Siberia; Irkutsk on the Angara, near Lake Baikal, the capital of Eastern Siberia; Chief towns. Tomsk, Omsk, and Yakutsk, capital of a large province. Kiackta, a town situated between Lake Baikal and the Yablonoi Mountains on the boundary between Siberia and the Chinese Empire, is a great mart for the interchange of the produce of these two countries. Vladivostok, a port situated on the shore of the Sea of Japan, near the northern boundary of the Corea, is the principal naval station of Russia on the Pacific. *Petro-paulovsk* is also a naval and trading port.

**33.—RUSSIA IN ASIA** (*continued*).**Turkestan.**

TURKESTAN derives its name from the fact that it was the early home of the Turkish branch of the Mongolian family from whom the present rulers of Turkey are descended. The country occupies an enormous area in Central Asia, and now forms three separate political divisions: (1) Chinese or Eastern Turkestan, sometimes called Chinese Tartary, which now forms part of the Chinese Empire. (2) Russian Turkestan, which occupies the great bend in the southern frontier of Russia, where it sweeps westwards from the Thian Shan Mountains to the Sea of Aral. (3) Independent Turkestan, lying immediately south of Russian Turkestan, and bordered on its southern frontier by Afghanistan and Persia. This latter division may now be included with Russian Turkestan in the description of the Russian Empire, as the Government is pushing its troops and extending railways through it towards the frontiers of Afghanistan, and it is really under the vassalage of that ambitious power. The settled population of the second and third divisions consists of Russians, of the Usbegs, the most civilised of the native races, and, with the exception of the Ottomans, the only Turkish people who possess a written language and literature, and of a few Jews, Hindoos, and modern Persians. This settled population is confined to the towns and agricultural districts in the eastern valleys and along the banks of the rivers and canals. The rest of the country, its upland pastures, steppes, and deserts, are inhabited by nomad tribes, the most remarkable of which are

the Kirghiz and the Turkomans. The Kirghiz wander about in the steppes pasturing their flocks. They live in little semicircular tents, made of a light wooden framework covered with felt or cloth, which can be pitched or struck in half an hour. They are a cheerful, light-hearted race, very fond of music and song, with which they while away their leisure hours.

Nominally Mohammedans, they are to a great extent heathens at heart, and many of the prophet's injunctions are totally disregarded by them. Their dead they treat with great respect, raising monuments above their graves. The growth of the Russian power has led to a reform in the habits of the Kirghiz, who have abandoned many of their former lawless practices, although it seems impossible for them ever to change the nomadic for a settled existence. Erect and keen-eyed, the Turkomans may be taken as the typical representatives of the Turkish family in its primitive condition. A race of warriors, disdaining labour, as fit only for women, utterly uneducated, and with few wants, these wild robbers were formerly feared alike in the deserts over which they roamed, and in the agricultural districts where they made their raids. Their delight was in plunder, and the slave markets of Bokhara and Khiva were filled with the prisoners who had been captured on the caravan routes, or had been carried off from the Persian frontier provinces by a surprise party of Turkomans. The abolition of the slave trade by Russia has put an end to this profitable source of revenue, and her power is gradually making itself felt even among these lawless tribes, some of whom have been subjected, while others have sought an *alliance with the great Czar*.

Already the Czar has assumed the title of Lord of Turkestan. The Khanates of Khiva and Bokhara, shorn, however, of some of their fairest possessions, still maintain a nominal independence, but their rulers would not venture on any course of action likely to prove displeasing to the great European power. South of Khiva the fertile oasis of Merv is in the hands of the independent Tekke Turkomans.

The chief towns of Turkestan are Tashkend, Samarcand and Khokan in Russian Turkestan, Bokhara and Khiva, capitals of the Khanates of the same names, and Merv.

*Tashkend* is the capital of Russian Central Asia and the residence of the governor-general. *Samarcand* is situated in a fertile plain watered by a little stream, which, rising in the Thian Shan Mountains, ultimately loses itself in the desert sands. The town is remarkable for its picturesque appearance. With it are connected the names of two of the world's greatest conquerors, for it was here that Alexander the Great fixed his headquarters when he was warring with the Turkish tribes, then called Scythians, and here also Tamerlane died and was buried. It was, no doubt, these political associations which led the Czar of Russia to select Samarcand as the place where he intends at an early date to be crowned as Emperor of Central Asia. Khokan is the capital of a Khanate of the same name, very recently annexed by Russia. Merv was destroyed in the last century by the Amir of Bokhara, and is now a mere collection of huts, but in its neighbourhood is a very strong fort.

*In conclusion it must be noted that although on the*

map the Russian dominions in Asia present so impressive an appearance, only a comparatively small proportion of their area is capable of supporting a dense settled population. While India alone is estimated to contain a population of 250,000,000, the whole of the Russian possessions in Asia are supposed to contain only about 18,000,000. Another fact is very striking, and that is the disadvantages Russia labours under as a great maritime power. The only communications by sea with other countries are—(1) By way of the Baltic and Arctic Seas, both of which are closed by ice in winter; (2) By way of the Black Sea, of which the entrance is under the control of Turkey; (3) By the north-east coast of Asia, which is very remote from all the civilised parts of the Empire. To these circumstances may be traced the restless ambition of Russia to extend her Asiatic dominions into fairer lands, and to obtain greater facilities for her commerce with the rest of mankind through the Persian Gulf or the Mediterranean Sea.

---

### 34.—CHINESE EMPIRE.

CHINA is especially interesting as being the only empire of Asiatic origin which can be compared in size and influence with the British and Russian dominions on the continent.

Area and  
divisions.

It covers an area greater than that of Europe, and it includes a population much larger than is to be found in all the British dominions massed together. Roughly speaking, China comprises the whole of the *eastern coast of Asia* from the Gulf of Tonquin to the

Corean peninsula, and extends thence westward to the further borders of the vast region between the Himalayas on the one hand and the Altai and Thian-Shan Mountains on the other.

The empire may be divided into six principal sections—China proper, Manchooria, Corea, Tibet, Mongolia, Chinese or Eastern Turkestan; and the large islands of Hainan and Formosa.

### China Proper.

Of these sections China proper is by far the most important, for although its area is only one-third of the whole empire, its population is twelve times as great as that of all the dependencies. On the east it is bounded by the sea, on the south partly by the sea and partly by those great mountain spurs which traverse the Indo-Chinese peninsula, on the west by the snowy ranges bordering the highland regions of Tibet, and to the north by ranges of much lower elevation.

China proper is in reality a highland country, but between the cities of Peking and Nanking lies a semicircle of plains which, being by far the wealthiest and most densely-populated portion of the empire, and, moreover, easiest of access to foreigners, has produced the very false impression that China is flat. This district, about three times as large as England, is known as the Great Plain. From about the middle of the coast-line juts out the Shantung peninsula, a mass of hills, between the lowlands and the sea.

Inland beyond the Great Plain, and also north and south of it, the land rises gradually to the true high-

Boundaries.

Relief of  
China.

lands of China, which become more rugged the further west we travel, until, towards the frontiers of Tibet, all signs of cultivation disappear, and we reach the giant peaks of the Snowy Mountains. Let us pause a moment to consider some of the geographical and other natural advantages of China.

Her quiet seas are guarded by a chain of islands stretching from Corea to Formosa; her peaceful plains are traversed by majestic rivers, from which, by the art of man, thousands and tens of thousands of canals are



WAYSIDE TRAVELLERS IN CHINA.

led over the land like the glittering fibres of a spider's web; her fruitful mountain slopes are turned towards the glowing sunshine, and behind rises the vast rocky table-land which protects her from the northern blasts of winter.

Nowhere is the soil more fertile than in China, and nowhere is the produce more varied. In the north the chief crops are European grains and vegetables; in the central portion the tea-plant and mulberry tree thrive best upon the higher ground, and rice upon the river banks; in the south are culti-

Soil and  
crops.

vated tropical fruits and vegetables. An especially rich soil of a brown colour, called *loess*, deserves notice. It is found in the north sometimes to the depth of



LOESS TERRACES, CHINA.

1,000 feet, and wherever it occurs, the farmer, if he but scratch the surface before sowing, is rewarded by a magnificent crop.

The mineral wealth of China is remarkable. Gold,



silver, mercury, copper, lead, tin, and iron are found in various parts of the empire, but especially in the south.

**Mineral wealth.** Most important of all, however, are the vast coal-beds, which have as yet been only partially explored. They occur in the Yang-tse-Kiang basin and also in the northern districts. In one province alone it has been calculated that there is a sufficient supply to last the whole world at the present rate of consumption for thousands of years.

There is no country of the same area which is so thickly peopled as China proper. If over the lowlands were spread as many inhabitants to the square **Population.** mile as there are over England, and over the highlands as many as there are over Scotland, the numbers would certainly be less than they actually are; and this comparison, be it remembered, is with a country only one-seventeenth of the size.

All this vast population, with the exception of a few hill tribes, belongs to the Mongolian stock, of which the characteristic features have already been **Features and dress.** described. Chinamen of the north and of the south vary as little in appearance as Englishmen of different counties. Their dress, also, is strikingly uniform, the summer costume of the lower classes being a loose-fitting pair of trousers and an equally loose-fitting jacket, while the winter dress consists of quilted cotton or of sheepskins. In summer Chinamen leave their heads uncovered, and the bare forepart of the scalp with the long tail of plaited hair hanging down behind adds greatly to their uniformity in appearance. The official class wear caps, and their dress is strictly regulated by *law*. Chinese women have a costume resembling that

of the men, but, unfortunately, the freedom of movement which they thus gain is counteracted by the custom, universal among the upper classes, of compressing the feet by bandages from about the age of



A FAMILY GROUP.

five years, so that at maturity a Chinese lady has only two little formless pegs on which to stand.

Rice, eaten with various seasonings, is the staple food of the people; it is placed in bowls and conveyed thence to the mouth by the aid of 'chop-sticks,'

Food. instruments resembling two small wooden knitting-needles held between the fingers and thumb of the right hand. Among the wealthy classes rice is less used, and the dishes at a Chinese gentleman's table are as varied as at a Parisian dinner.

---

### 35.—CHINESE EMPIRE (*continued*).

#### China Proper.

THE religions of China proper are almost indescribable, as they are not held by the people as separate and distinct faiths, but intermingle and overlap one another. The existence of a Supreme Being and of a future state of rewards and punishments, which forms the basis of the religions of so many nations, has little hold on the minds of the ruling and educated classes, and among the poorer classes is confused with degrading and ignorant superstition. Superstition mingles in every thought and action of the people: there is a lucky day for everything, even to visiting friends or cutting the toe-nails.

Buddhism is the religion of the great majority of the people, who, however, hold many doctrines which had no place in the original teaching of Buddha, as, for instance, the belief in a Supreme Being, and a multitude of saints and evil spirits, and in the immortality of the soul. Some of the forms of Buddhist worship have so much resemblance to those of certain of the Christian churches that it has been suggested that they have been derived by the Buddhists from some of the Asiatic Christians.

Another numerous sect in China is that of the Taoists. The only remaining book of its founder—who was born about 600 B.C.—is extremely obscure, and his nominal followers are chiefly remarkable for their belief in magic, and their worship of a variety of idols, devils, and inferior spirits.

*Of the ruling and educated classes, Confucianism is*

the common religion. As taught by its founder, Confucius, who was born 551 B.C., it was merely a moral, political, and philosophical system, but some of his followers have now added to his teaching a belief in a Supreme Being. The best known of the doctrines of Confucius is that knowledge is the foundation of everything good, and that love, reverence, and obedience to their parents is the first duty of children.

Mohammedanism was long ago introduced into China proper by way both of the inland frontiers, and by the traders who visited the south-eastern coasts of the country. It has not, however, spread widely in this part of the empire, and only in some of the outlying provinces is it the religion of any considerable proportion of the population.

The religious observances which appear to have the greatest hold on the real feelings of the Chinese are the rites performed in honour of the dead.

‘In every household a shrine, or tablet, or oratory, or a domestic temple, according to the position of the family, contains the simple legend of two ancestral names written on a slip of paper or carved on a board. Incense is burned before it daily, or on the new and full moons, and in April the people gather at the family graves, to sweep them, and to worship the departed around a festive sacrifice. To the children it has all the pleasant associations of our Christmas or Thanksgiving. As the children grow up, the worship of the ancestors, whom they never saw, is exchanged for that of the nearer ones who bore and nurtured, clothed, taught, and schooled them in helpless childhood.’<sup>1</sup> Among the ignorant

<sup>1</sup> *The Middle Kingdom*, by S. W. Williams, LL.D.

Chinese this worship approaches to a form of idolatry, though with most of the educated classes it merely expresses the exaggerated respect for the wisdom and all the customs of their ancestors, which is so characteristic of the whole Chinese nation, and also the respect for parents so strongly enforced by the precepts of Confucius.

In addition to these various beliefs, there is a State religion, of which the Emperor, who holds the title of the Son of Heaven, is the High Priest. In this capacity the Emperor, at intervals, and after passing some time in fasting and solitude, enters the magnificent Temple of Heaven at Peking, and offers sacrifices and prayers, and mediates with the higher powers on behalf of all his people.

At one time there were several thousand Jews in China. They are now reduced to a few hundred miserably poor people in one particular district. While their features still bear unmistakable evidence of their descent, they have forgotten their sacred language and traditions, have recently discontinued their ritual worship of Jehovah, and are one by one falling away into the religions of their neighbours.

The earliest recorded attempt to introduce Christianity into China was made by the Nestorian Church in the seventh century. To the Chinese, whose religious ideas have generally only a slender hold on their feelings, toleration is comparatively an easy virtue; but while all the other religions of China have been treated by the Government on a footing of perfect equality, and with mutual charity by their respective adherents, *Christianity* has frequently been made an exception to

this rule, and its teaching forbidden, probably in the fear that it might open the door to foreign intercourse and influence. In the year 1858, however, perfect toleration was secured to the Christian faith under articles of agreement between the Chinese Government, and those of Great Britain, Russia, France, and England respectively. Missions are being rapidly extended through the country by the various Christian sects, and the number of professing Chinese Christians is estimated to be at least a million.

Nowhere in the world is more outward reverence paid to what passes as learning. To the common people the

Education. great scholar seems almost a god; and as the

high offices of state are open to him alone, this admiration is not likely to grow less.

The son of well-to-do parents has to choose between embarking in trade and becoming a student with the hope of obtaining an official post. If the latter course is adopted, he prepares for a series of examinations, first before the local magistrate, then in his district town, and so on, if he be successful, till the capital of the province is reached, and finally Peking. After the last examination the scholar who is declared to have shown the greatest merit is admitted to the college, of which the members rank next after the Emperor. The whole country does him honour; the Empress throws a golden chain over his neck, and fastens upon his breast a diamond brooch. Lesser successes than this are rewarded by different posts under the Crown; in fact, it is legally impossible to reach any official position but through the examination-hall. As the rewards are so many and so great, immense numbers flock to the different examina-

tions, and minute precautions are taken to prevent any candidate using unfair help. To each is allotted a little miserable cell about  $3\frac{1}{2}$  feet long, 3 feet wide, and 6 feet high, and several wide pieces of plank to serve as table by day and as bed by night. He is first searched, and then the door of his cell is sealed by the examiners, food being thrust in under the door. Here he remains for two or more days writing compositions in prose and verse upon given subjects. Sometimes as many as ten or fifteen thousand competitors assemble for these examinations, so that in provincial capitals the examination-hall is one of the largest buildings.

Unfortunately bribery sometimes succeeds in securing an unfair position to a candidate, and the subjects of examination are so limited—consisting in all of nine books, and composition in prose and verse—as to narrow the mind, and to give undue value to prodigious feats of memory. In truth, much of the learning so highly prized in China is of little or no value, for the Chinese have fallen deplorably behind all other civilised nations in knowledge of all the arts and sciences. Their physicians are generally mere quack doctors, who prescribe the most fanciful remedies after the slightest examination of their patients. With the exception of the few individuals who have been thrown into direct intercourse with foreigners, the ignorance of the Chinese about other countries and people is perfectly ludicrous.

Recently, however, under the advice of Europeans, measures have been taken to greatly improve education in China. Foreign elementary science books have been translated for popular use; and science and European *languages* are taught in the college at Peking.

**36.—CHINESE EMPIRE** (*continued*).**China Proper.**

ACCORDING to the doctrine laid down by Confucius, all Chinamen are regarded as forming one large family, of which the Emperor is the head.

Govern-  
ment.

The duty of his subjects is, therefore, to yield that obedience which, says the philosopher, becomes sons; the duty of the Emperor is to exercise that loving control which is the chief virtue of a father.

But while, according to the theory of Chinese government, his subjects are to be obedient to the Emperor so long as he rules well, their right to rebel and to dethrone him if he rules badly is as freely declared and is very plainly asserted in the books of their revered teacher Confucius. Though such a right cannot be easily enforced, its acknowledged existence no doubt has a wholesome influence over the Emperor in the exercise of his authority.

To assist the Emperor in the discharge of his duty, there is a council of state meeting daily in the palace, and various boards of administration, such as the Foreign Office and the War Office. This constitutes the central government at Peking. Of the eighteen provinces into which the empire is divided, fifteen are grouped together under eight viceroys, the remaining three being administered by governors. Each viceroy raises his own army and navy and levies his own taxes, so that he is in reality a little king. But the greater the power the greater is the responsibility; for all disorder in his



province he is accountable to the Emperor, and in his turn he makes the governors, prefects, sub-prefects, and all the host of smaller officials under him answerable for their districts. He cannot, however, remove his subordinates at pleasure, but is obliged to lodge his complaint with the central government at Peking.

All members of the official class, called *mandarins*, receive salaries; but these are in most cases ridiculously small, and as the mandarins, poor when they first take office, often retire with large fortunes, it is evident that they must, in one shape or another, obtain money from the people by unlawful means. As, however, the taxes are light, these exactions, when not too severe, are submitted to without murmur.

Crimes are very severely punished, death being often preceded by horrible tortures.

In such a fertile land as China agriculture naturally holds the first place among industries. Many of the

Industries and trade. semi-religious ceremonies of state are connected with the various operations of farming, such as ploughing, sowing, and reaping. Rice-growing is the most important home-trade; tea-planting and the manufacture of silk with its attendant industries, the cultivation of the mulberry tree and the nursing of the silkworms, form the most essential elements in the foreign trade.

Three-quarters of the whole exports, chiefly tea and silk, and nine-tenths of the imports, in which the largest items are opium and cotton goods, are shipped to or from different portions of the British Empire. As the total annual value of these imports and exports *has now risen* to 20,000,000*l.* each, we see what a large

stake Great Britain holds in the Chinese trade. The rapid growth of this trade is not less remarkable than its extent. Until the year 1842 European intercourse was restricted to Canton and Macao, but after the war be-



A CHINESE SHOE MERCHANT.

tween England and China which terminated in that year, the Chinese were compelled, though very reluctantly, to open four other ports to foreign commerce, and to cede the island of Hong-Kong to Great Britain; and later hostilities with France and England led to an

addition of several more ports to the number opened to international trade.

The jealous exclusion of foreigners was to some extent attributable to their misconduct, some very unfavourable representatives of the Western nations having at times visited China; but it was also in some measure caused by the disinclination to progress, which in later times has been such a marked feature in the Chinese character. The

Stationary  
character  
of Chinese  
civilisation.



JUNKS.

extent to which the early civilisation of China has remained stationary is strikingly illustrated by the fact that the art of *printing* was practised by the Chinese nine centuries before it was discovered by Western nations; yet it has hardly advanced amongst them from that time to this. *Gunpowder* was compounded in the East, and used in warfare long before European nations had any knowledge of its properties; yet China has not now a *single gun* of home-manufacture which would avail in a

contest with the Western powers. By the *compass* her mariners directed their course, while our seamen were still dependent upon the stars; yet the build of her vessels has been little improved since that time, and she can point to no great navigators belonging to her nation. Mineral wealth, we have seen, the Chinese possess in abundance; yet they are afraid of disturbing the balance of the world by mining, and so foreign coal burns in their blacksmiths' fires, and foreign lead is used to pack their own tea. It would be hard to name a country better adapted for railways than the Great Plain of China, but the only line (one from Shanghai) which has ever been opened was bought from the foreign holders by the Chinese Government and destroyed.

The main causes which have contributed to the want of progress among Asiatic nations have already been referred to, but in the case of China there are some special circumstances which have led to it.

In the first place, the only neighbours with whom the Chinese could easily communicate have always been inferior to them in knowledge and civilisation; and their own country is so rich in natural products, that they have never been tempted to embark in foreign trade and intercourse with distant nations in order to supply their wants. Moreover, their language is very peculiar and clumsy, and it has been a great barrier to the spread in China of the knowledge and ideas of the most civilised nations of modern times. These causes have combined to make the Chinese a self-contained people, and their isolation has tended to foster their *self-complacency*, and to indispose them to every kind

of change or progress, their firm conviction always being that the conditions under which their ancestors lived must necessarily be the best.

But those who know most about China hold that in a few years we shall witness a great change in the condition of that country. The immense trade which has so recently sprung up with Western nations is silently working a revolution. Crowds of Chinese labourers emigrate annually to America and other countries, and on their return (for they always, if possible, come back to die in China), the Western habits and thoughts which they have acquired are shared with their neighbours.

That the Chinese have many of the qualities of a progressive nation is certain. They are a frugal, industrious, self-reliant, persevering race, and are such good men of business as to have supplanted the native merchants in the Japanese ports.

### 37.—CHINESE EMPIRE (*continued*).

#### China Proper.

As in China there are at least one hundred towns containing more than a hundred thousand inhabitants

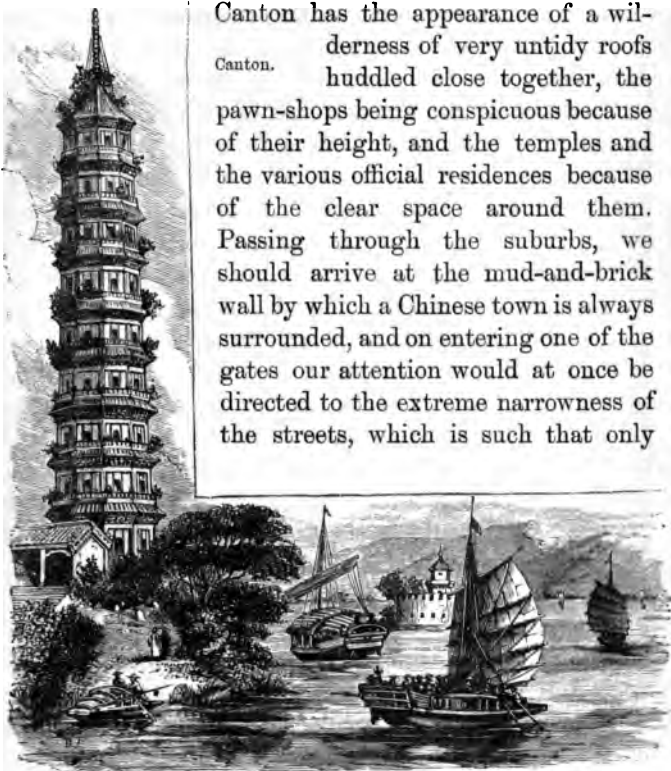
each, it would be useless to attempt to describe all, or even to give a list of their names. Those in the south are distinguished from the northern group by their exceedingly narrow paved streets, and by the greater height of the houses.

Canton, the chief city in the south of China, is *built upon an eastern bend of the Canton River*. The

banks of the river are quite concealed by a city of boats, called *sampans*, in which a vast population is born, lives its whole life, and dies. From above,

Canton has the appearance of a wilderness of very untidy roofs

huddled close together, the pawn-shops being conspicuous because of their height, and the temples and the various official residences because of the clear space around them. Passing through the suburbs, we should arrive at the mud-and-brick wall by which a Chinese town is always surrounded, and on entering one of the gates our attention would at once be directed to the extreme narrowness of the streets, which is such that only



SCENE ON A CHINESE RIVER, PAGODA AND JUNKS.

one sedan-chair can pass at a time. There is no room for wheeled conveyances, so that the wealthier inhabitants and the officials are borne along in these chairs.

The crowd in the streets is very great, and they shout, grunt, and make a great variety of peculiar noises. This is especially the case with those who want to clear a way, such as the chair-carriers and the porters, with their burdens slung at the two ends of long bamboo rods. Some of the streets are shut in overhead by means of loose boards laid across, or matting, or palm-leaves, to protect them from the summer sun. Most of the shops are painted black or red ; some are splendidly carved and gilded. They are open to the street and are generally narrow, but deep, and lighted from above. In front hang long signboards painted black-and-scarlet and covered with black-and-gold Chinese characters. The streets are straight and, for a Chinese town, clean ; but even here the dirt and smells are such as we are quite unaccustomed to. There are about a million and a half of inhabitants in Canton.

Within the walls of Peking, the capital of China, are three distinct cities, each in turn surrounded by high walls and having many gateways: the

Peking.

Chinese City, the Tartar City, and the Imperial or Forbidden City, the last-named being the only part of the capital which it is impossible for foreigners to enter. The streets, especially of the Tartar City, are wide, bad, and dirty, and in the spring the dust-storms in them are terrible. In the Chinese City the aspect of the buildings is much more like that of Canton ; the shops, although meaner in appearance, opening into courtyards, around which are rooms filled with treasures, sometimes priced at almost fabulous sums. Here is the Temple of Heaven, covered with tiles of a splendid *dark blue* colour. These tiles are a remarkable feature

in Peking, for all the imperial buildings in the Forbidden City have bright yellow roofs, and the top of the wall that encloses this part of Peking is also bright yellow. This is the imperial colour. Some of the palaces belonging to the princes have bright green tiles.



GATE AT SHANGHAI.

The number of inhabitants is variously estimated at from half a million to a million and a half.

At the mouth of the Canton River lies the British possession of Hong-Kong, an island about eight miles long. Here has been built the European town of Victoria, with spacious stone houses and wharves. It is the head-quarters of the English naval and military forces in this part of the world.

Near the mouth of the Canton River lies the seaport of Macao, an old Portuguese settlement, which was



once a place of considerable trade. Now, however, it is in a state of picturesque decay, and only awakens the melancholy interest associated with the traces of its former prosperity.

Besides those described the other most important towns are Nanking, the former capital of China, and the ports of Amoy, Foochow, Shanghai, and Tsien-tsin; all these ports being the seats of considerable trade with Europe, and situated on the coast of China. Another important centre of foreign trade is Hankow, on the Yang-tse-Kiang River, which, though 700 miles distant from the coast, is accessible to large steamers.

---

### 38.--CHINESE EMPIRE (*continued*).

#### **Manchooria.**

MANCHOORIA, the home of the Manchu Tartars who once conquered China, and from whom the Chinese Emperor and his most trusted troops are still chosen, is a country lying between the Khinghan Mountains on the west, the Usuri River on the east, the Amur on the north, and the Great Wall of China on the south. Manchooria thus nowhere touches the sea, her proper coast-line being occupied by Russia. It is traversed by the Sungari, a magnificent waterway up which Russian steamers ply. In its valley Chinese immigrants have established themselves in such numbers as almost to have displaced the original inhabitants.

This peaceful invasion has extended to other river-valleys in the country, and even on the bleak steppes of *the western frontiers* Chinese traders have set up their

isolated stores. Buddhism is the prevailing religion, but among the inhabitants are a large number of Mohammedans.

### Corea.

Corea, hardly more than a nominal dependency of China, is bounded on every side by the sea except on the north, where a broad band of waste land and a mountain range protect it from the warlike Manchus. It is a highland country, with broad fertile valleys upon the west sloping down to the Yellow Sea, which is studded with islands near the coast. Owing to its mountainous character and sea-girt position the rainfall is heavy and the soil prolific. The mineral wealth of the country is great, and the inhabitants are skilled workers in metal. The people in many respects resemble the Chinese. Corean artists in former times are said to have taught the Japanese a great many of their exquisite designs in different branches of art.

Trade and agriculture are in a very backward state, and up to the present time the Government has jealously excluded the people from foreign intercourse. It is probable, however, that recent political events in Corea will lead to a change in this policy.

Buddhism is the prevailing religion.

### Tibet.

The Himalayas and Kuen-Lun ranges closing in on the west, and joined together on the east by the frontier mountains of China, bear upon their shoulders the vast table-land of Tibet. This little-known country was conquered by China at the end of the last century, and since that *time trade* communication with India has

been closed. Bare grassy plains and large lakes, chiefly of salt water, are the prevailing features of the table-land; and the wealth of the inhabitants is consequently confined to large flocks of oxen, goats, and sheep, with which they wander from one pasturage to another. The Tibetans belong to the Mongolian stock; they are a brave and generous race, of an intensely religious and superstitious character, professing that type of Buddhism which is known as Lamaism. With a love and aptitude for commerce, they combine much skill in the working of metals, in weaving, and in the arts of pottery, and cultivate such crops as will ripen in their climate.

A Chinese viceroy resides in Lassa, the capital of Tibet, and here also dwells the spiritual head of Lamaism. This town is one of the most interesting in Asia, for besides being a great religious centre, it is an immense trading-station.

### **Mongolia.**

Mongolia includes all the vast territory between the Altai, Thian Shan, and Pamir Mountains on the north and west, the Kuen-Lun on the south, and the Khin-ghan on the east, with the exception of that portion called Chinese Turkestan, which lies between the western Thian Shan and the Kuen-Lun ranges. Another part, that between the Thian Shan and Western Altai, often treated separately as Zungaria, is of the greatest importance strategically to China, because through its passes Russia would find the easiest line of advance into Central Asia.

In the centre of Mongolia lies the stony wilderness of Gobi, where the sound of water is never heard, and *where neither tree nor beast is seen.* The only habit-

able districts are those lying on its outskirts. Towards China opium is grown, and in the northern valleys grass and forests begin to appear. The inhabitants are a wandering race who live in tents; they are splendid horsemen, and are mostly shepherds and herdsmen.

The prevailing religion is Buddhism.

### **Chinese or Eastern Turkestan.**

Chinese Turkestan, sometimes known as Chinese Tartary, forms the western extremity of the Chinese Empire, and is enclosed by high mountains on all sides except the east, where it opens out into the wide steppes of the interior plateau. A crescent of fertile land, which is irrigated by the aid of the streams fed by the melting snows on the surrounding mountains, extends along their lower slopes, but the basin they encircle is a barren waste, and forms part of the dreary Gobi Desert. The people are Mohammedans.

---

### **39.—INDO-CHINA.**

THE easternmost peninsula of Southern Asia, known as Indo-China or Further India, runs farther south than either of the other peninsulas, its extremity lying about one degree from the equator. It is further distinguished, like Greece among the peninsulas of Europe, by its large number of islands, and by the bays and headlands which vary its coast-line.

Indo-China is bounded on the north by India and China, and on all other sides by the open sea, with the exception of the coast farthest to the south-west, which forms one side of the Straits of Malacca.

Through the territory which separates British India from China proper the mountain system of Tibet is continued southwards into Indo-China, where it radiates over the whole country and forms a number of ranges, one of which extends to the extremity of the peninsula of Malacca. From the north of the country flow countless streams, and four large rivers, namely, the Irrawaddy and Salween, which flow through Burmah, the Menam, which flows into the Gulf of Siam, and the Mekong. Some doubt hangs over the exact sources of these rivers, but it is probable that one or more of them have their sources in the Tibetan plateau.

The number of large rivers in this region serves to remind us of the enormous rainfall which occurs here. A great part of the country is in consequence still covered with dense forests, and everywhere vegetation is most luxuriant.

Indo-China proper may be divided into the states of British and Native Burmah, French Cochin-China, Siam, Annam, and Cambodia.

Native Burmah has within recent years shrunk very much in size, its principal loss being the whole coast territory, which has passed into the hands of  
Burmah.

Great Britain, and is now, under the name of 'British Burmah,' administered as part of her Indian Empire.<sup>1</sup>

'In their character the Burmese have much in common with the Chinese. They possess a considerable degree of intelligence and independence, and are shrewd and enterprising, although somewhat indolent.'

<sup>1</sup> Since the above passage was written Native Burmah has been *conquered, and annexed* to the British dominions in Asia.

They are tolerant of all religions, but remain steadfast to Buddhism, which is here preserved in a purer state than among any other people. Education is in an advanced condition, a knowledge of reading, writing, and arithmetic being universal. This is due to the law, which compels all youths to reside three years in a religious house, where they are educated.

Siam. Siam has no coast-line except upon the south. Buddhism is the State religion, but no restriction is placed upon any form of worship. The Siamese king is chosen by election from princes of royal blood, and in theory all his subjects are slaves to him.

Bangkok, at the mouth of the Menam, the present capital, is picturesque when viewed from a distance, but on a nearer view the dirt and bad odours destroy any lingering charm. Its population, partly Siamese and partly Chinese, is said to be nearly half a million.

Annam. In Annam there is a marked distinction between the highlanders, some of whom are still nomads, and the lowlanders. The Annamites are brave but lethargic, and all their trade is conducted by Chinese merchants.

The lower part of Annam, or Cochin-China, as it is sometimes called, has been ceded to the French, who have built here the town of Saigon, which, although lying some distance up a river, is accessible to large trading vessels. The remainder of Annam may now be described as a state in vassalage more or less to the French, by whom its capital, where the puppet king still resides, has been strongly fortified.

Cambodia has especial interest as the home of a

branch of the Aryan race whose dominion must at one time have been of great extent, and the monuments of whose glory may be compared with those in the Nile valley and in Mesopotamia. We are led to this conclusion as to the former vast extent of the kingdom by the discovery of allied tribes scattered over the hills and forests of Central Indo-China. Some of these wild people are still distinguished by a gentle



BANGKOK.

disposition, a certain innate politeness and courtesy, as well as a surprising artistic taste and skill lavished on their dress, ornaments, pipes, quivers, and other objects. The traits may well be the faint reflections of a now extinguished culture. Lost for ages amidst their dense woodlands, which they believe to be the centre of the universe, they can never be induced to leave the wild *country of their birth.*

But at least two thousand years have passed since the period of their greatness, and now the ruins of Buddhist temples and mighty cities lie in forgotten places overgrown by rank jungle vegetation. Yet the speech of the Cambodians, and their features, resembling those of the Hindoos and Europeans, still betray their ancestry.

---



MALACCA.

**MALACCA.**

The whole of Malacca from the Isthmus of Krah southwards is mountainous. Magnificent woods and great fertility of soil characterise this peninsula, and its deposits of tin ore are of great value. The northern portion is held by petty Malay states tributary to Siam.



All the rest is divided between Malay states, under our protection, and the British possessions known as the Straits Settlements.<sup>1</sup>

#### 40.—JAPAN.

THE Empire of Japan consists of a long chain of islands, stretching, in a broken curve, from the south of Kamtschatka to beyond Corea. These islands  
The empire.

thus form the eastern outposts of the Asiatic continent, from which they are separated by the Sea of Japan and other inlets of the Pacific Ocean. The chain begins with the Kurile Islands, is carried on through the central archipelago of Nippon, and terminates with the Lu-Chu Islands, lying not very far north of the Tropic of Cancer. Some of these islands are of great extent, well cultivated, and thickly populated; while others are mere rocky islets, untenanted save by sea-birds. All are of volcanic origin, and form a link in that great volcanic chain which stretches from Kamtschatka southwards to the Philippines and the Moluccas. Many of the volcanoes in the empire of Japan are still active: slight shocks of earthquake are very common, and appalling catastrophes have at times occurred.

The central archipelago is by far the most important part of the empire, and to it the name of Nippon, or 'The Land of the Rising Sun,' has been given. It  
Archipelago of Nippon. includes numerous small islands and four large ones, the largest of which is called by Europeans

<sup>1</sup> These settlements are described in the book on *The British Colonies and Dependencies*.

by the same name as the archipelago, though among the Japanese it is known as 'Hondu.'

In a dominion stretching over such a wide extent of latitude as Japan, the varieties of climate would under any circumstances be great, and they are further increased by the influence of the ocean currents.

Varieties of  
climate.

Thus the Kuriles, lying to the north, and chilled by a cold current from the Sea of Okhotsk, are barren and thinly populated, the haunts of bears, wolves, and beavers; while the southerly Lu-Chus, which are warmed by the Japan current, are in some parts covered with forests, and in others are beautified with meadows and gardens, and produce many tropical plants. In the central archipelago which constitutes Japan proper, the east coast of the large island of Nippon, which is washed by the warm waters of the Japan current, is semi-tropical in the character of its climate and vegetation. The west coast is visited by cold winds, blowing eastwards from across the Asiatic mainland; and here, although it lies in the same latitude as Southern Italy, the winters are so severe that the rivers are frozen and the snow lies three or four inches deep on the ground.

The coast-line of the larger islands is much indented, and the bays afford in many instances good harbours for the native craft, although only a few are deep enough to admit large vessels.

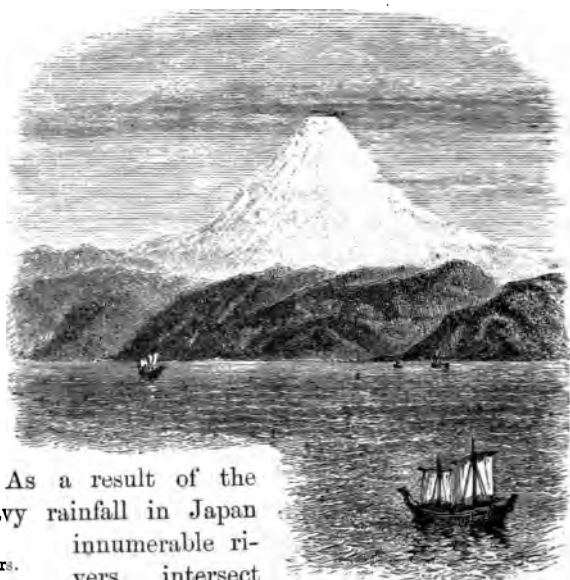
Sea-coast.

The archipelago is very mountainous, but in the island of Nippon the hill ranges recede at several points to a considerable distance inland, leaving alluvial plains between them and the sea. The

Surface and  
minerals.

highest mountain is an extinct cone-shaped volcano, known as Fuji-yama, which rises in solitary grandeur to a height of over 12,000 feet, and can be seen at a distance of 100 miles. The Japanese regard it as sacred, and make pilgrimages to its summit.

Minerals are found in great abundance in the mountains, among the most valuable being gold, silver, copper, marble, iron, and coal.



As a result of the heavy rainfall in Japan innumerable rivers intersect the islands, but the mountainous character of the country prevents these streams from being navigable to any great distance from their mouths. Many of them are indeed 'positive hindrances' to navigation, for the quantity of sediment

FUJI-YAMA, IN NIPPON.

which they carry down from the hills accumulates at their mouths and gradually shoals outward, filling in the bays and gulfs which might otherwise have served as good harbours. These rivers are also subject in the rainy season to floods which do great damage.

About four-fifths of the Japanese Empire is still covered with forests, the hill ranges being clothed with trees often to their very summits. Among  
 Vegetation. the more remarkable products of these forests we may mention the magnificent Japanese cedar, the camphor tree and the lacquer tree, from the last of which is obtained the lacquer varnish so celebrated in Japanese art. There is also a kind of bamboo, growing to a height of from fifty to sixty feet, which is largely used in the construction of houses. Wherever the ground admits of cultivation, crops of rice are grown in the lowlands, and wheat, millet, and barley on the higher slopes. The tea-plant and the mulberry tree are also largely cultivated.

---

#### 41.—JAPAN (*continued*).

THE population of the empire consists of the Ainos and of the Japanese. The Ainos are supposed to have  
 Population. been the original inhabitants, but the Japanese have driven them out from all the more habitable regions, and they are now to be found only in the islands of Yezo to the north. They are a weakly, stunted race, and are dying out before the advance of civilisation; *but they are gentle, amiable, and affectionate,*

and their faces, with soft eyes, delicate features, and olive tints, are not devoid of attractiveness.

The Japanese belong to the great Mongolian stock, but have branched off at so remote a period that their relationship is no longer to be clearly traced either in their language or in any of their customs. Their features and colour are, however, of the true Mongoloid type, the yellow skin, the oblique eyes, the broad nose, the small hands and feet, all bearing witness to their origin. They are a singularly imitative people. Some centuries ago they adopted of their own free will the Chinese method of writing and the Chinese philosophy, while quite recently they have welcomed European ideas and European civilisation with the most ardent zeal. But although the Japanese are ready to borrow ideas from the foreigner, the spirit of jealousy which once isolated Japan from the rest of the world, by excluding foreign vessels from Japanese ports, and by confining the Japanese within the limits of the empire, still survives. Foreigners are allowed to reside at only a few ports thrown open by treaty, and the foreigners who have been invited to organise the different military and civil departments are dismissed as soon as the natives have been sufficiently educated to carry on the work unaided. Thus the imitative tendencies of the people do not in the least impair their love of independence and their self-reliance. Industry is another characteristic of the Japanese. Every available inch of soil is carefully cultivated by the farmers. The patient industry shown by this people in the production of artistic objects has made Japanese art famous throughout  
the world.

The Japanese houses are usually one-storied, with projecting roofs and verandahs, and are built of bamboo wood. They contain scarcely any furniture, but the floor is covered with a mat on which the inhabitants sit. These mats are kept scrupulously clean, the Japanese taking off their shoes before stepping upon them. The interior can when necessary be cut up into separate rooms, by means of sliding screens made of bamboo trellis-work filled in with paper or oiled silk. Rice and fish form the staple food of the country. Tea-houses, where the people assemble to drink tea and to amuse themselves, and public baths are to be found in every Japanese town.

Reading and writing are generally taught at an early age, and in the large towns there are now schools, to which, as in Europe, grants of money are made by the Government, and in which the English language is a compulsory subject of instruction.

Japan is now thrown open to the trade of all countries. At present the imports are in excess of the exports. The chief exports are raw silk, rice, tobacco, and tea.

The empire is governed by an absolute sovereign, called the Mikado, who is supposed to be of divine descent. This potentate formerly dwelt with his court at Kiôto. For many years the real power was, however, vested, not in him, but in the Shogun, or commander-in-chief, who resided at Yedo, and who stood at the head of a powerful military class, resembling in its military organisation the feudal system of our own middle ages. Three times a year the Shogun repaired to Kiôto, there to pay allegiance to his

Manners and  
customs.

Education.

Trade.

Govern-  
ment and  
history.

spiritual lord ; but in reality he was the master, and the Mikado a mere puppet in his hands. This state of things lasted till the middle of the present century, when, the Shogunate having become very unpopular, a revolution broke out. The Shogun resigned in 1868, and after a short contest with his followers, the Mikado was reinstated in all his rights, and occupied once more the position held by his earlier ancestors, as absolute ruler of the empire. He now resides at Yedo, or, as it is more commonly called, Tokio.

The chief towns of Japan are Tokio, the present capital of the empire, Kiôto, formerly the residence of the Mikado, and the treaty ports of Yokohama, Chief towns. Nagasaki, Niigata, and Osaka. Kiôto is regarded as almost sacred by the Japanese, and is said to contain over a thousand temples, in one of which no fewer than 333,333 idols are enshrined.

---

#### 42.—THE MALAY ARCHIPELAGO.

THE MALAY ARCHIPELAGO includes the cluster of islands which are separated from Indo-China and China proper by the Straits of Malacca and the China Sea. They comprise several most interesting groups, but it will not be necessary to describe them at length, as in many ways they resemble the neighbouring parts of the mainland of Asia. The most remarkable facts in relation to their physical features are—(1) That they form the southern portion of a great volcanic chain of islands which extend northward as far as the peninsula of *Kamtschatka*, and lie almost parallel to the east coast of

Asia; (2) That they are from time to time visited by the most terrific earthquakes and volcanic eruptions experienced in any part of the globe; and (3) That though the general character of the climate is tropical, the irregular coast-line of most of these islands is of such extraordinary length in proportion to the land area it encircles, that the influence of the sea is exceptionally great in moderating the temperature, few parts even of the largest islands being beyond the reach of the sea breezes.

The animal life and the vegetation of the islands differ little from those of Asia; but, as is explained elsewhere, they present very striking contrasts<sup>1</sup> to those of the neighbouring islands of Australasia.

The largest islands in the Archipelago are—(1) Borneo, Sumatra, Celebes, and Java, in its south-western division. (2) Gilolo, in its south-eastern division, which is known as the Molucca group. (3) Luzon, in its northern division, which is known as the group of the Philippines. (4) New Guinea, in its eastern division, which is known as the Papuan group.

The Malay Archipelago contains a population of about sixteen millions; and among the larger islands Java is the most thickly peopled. The inhabitants consist for the most part of two races, the Malay and the Papuan, of which the Malays are by far the more numerous. The majority of the Papuans dwell in New Guinea and the adjacent islands, while the Malays occupy almost exclusively the western portion of the

<sup>1</sup> For an explanation of these contrasts see the lesson on Oceania in the earlier book of the Series, on *The British Colonies and Dependencies*.



cluster—the Moluccas, the Philippines, and the large islands of Sumatra, Java, and Celebes. The Malays are of a light reddish-brown colour, with more or less of an olive tinge. The hair is black and straight, and very coarse in texture. Their average height is not as great as that of Europeans. Their faces are broad and slightly flat, and have prominent cheek-bones. They are an undemonstrative race. Like most islanders, they are extremely fond of the sea, and large numbers of them are inveterate pirates. Their boats and canoes are strongly and skilfully built, while their large prahus, or war canoes, are the terror of the seas.

The Papuans are a darker race than the Malays, though they are not so black as negroes. Their hair is very peculiar, as it grows in tufts or separate curls, and when accompanied, as it often is, by a frizzly beard, gives them a wild and savage appearance. They are slightly taller than the Malays, and their features are more like those of Europeans.

The inhabitants of Borneo are called Dyaks. They belong to the Malay race, but are much more degraded than the Malays of the smaller islands. Among many other degrading customs is that of preserving the skulls of their enemies as trophies. Killing an enemy is a sign of manhood, and no young Dyak can marry until he has presented the object of his affections with at least one skull as evidence of his prowess.

These islands have considerable trade with England, the United States, Holland, and China, the most important exports being sugar from Java, sugar and hemp from the Philippines, and spices, such as cloves *and nutmegs*, from the Moluccas. Among the other

articles exported are rice, coffee, indigo, tobacco, gutta-percha, and valuable kinds of timber from the larger islands. The Chinese buy such articles as edible birds' nests, tortoise shells, camphor, and spices.

*Towns.*—The chief town in Sumatra is Acheen, with a population of about thirty-six thousand. Batavia, the largest town in Java, has a population of about a quarter of a million, mostly Malays, though there are also many Chinese, and a few Dutch and English merchants. Manilla, the capital of the Philippines, has a population of 160,000. It is the chief town in the Spanish possessions, and has a large trade, mostly in the hands of British and American merchants.

---

## A F R I C A.

---

### 43.—INTRODUCTION.


FEW geographical questions are more interesting than the relations of the physical features of a country to the history and life of its people. In Africa—the great division of the globe which we are about to consider—these relations are at the same time very simple and very striking.

A desert, far surpassing in extent any other in the world, stretches completely across the north of the continent, from east to west; and by means of this desert a narrow belt of fertile land, bordering the Mediterra-

Relations of  
the physical  
to the  
political  
geography  
of Africa.

nean Sea, is separated from the rest of Africa. Conveniently situated for maritime intercourse with other Mediterranean districts, but deprived by the desert boundary to the south of easy access to the interior, this belt has a history entirely distinct from all the other parts of Africa. In its eastern extremity lies Lower Egypt, so famous as the seat of the oldest civilisation of which any records have been preserved; while to the west of it was the renowned city of Carthage, one of the many colonies founded by the Phœnicians, and the proudest rival of Rome in the long contest for supremacy in the ancient world. During the three centuries which preceded the birth of Christ, the Egyptian seaport of Alexandria was the centre of Grecian civilisation and learning, and subsequently all the Mediterranean states of Africa formed part of the Roman Empire in the times of its greatest prosperity.

When, however, we compare the history of the Mediterranean states of Africa with that of the other parts of the continent, we find the most extraordinary contrasts. Only a very vague and hazy knowledge of any of the regions south of these states was possessed by the civilised nations of antiquity, and it was not until the fifteenth century that the nations of modern Europe knew anything of them except from a few meagre, and often untrustworthy, traditions which had been handed down to them from ancient times. Indeed, so late as towards the close of the last century, all the interior tropical regions, embracing at least one-half of the continent, remained an unexplored land; while its people, numbering many millions, lived completely *secluded from the outer world*.



The prolonged isolation of such masses of people, who were never far distant from countries inhabited by the most enterprising and civilised nations of the day, is one of the most extraordinary facts in the history of mankind. Its explanation will, however, become clear to us as we proceed with the description of the continent. We shall then perceive how the peculiar shape of Africa, the cataracts and rapids which bar the river channels where they descend from the inner uplands to the outer lowlands, the deficiency of water in the great deserts, and a climate in many places very unhealthy, have all contributed to discourage the enterprise of the explorer, and, until a very recent date, to limit the settlements and conquests of foreign nations to the maritime districts of the continent. But in the present century, especially during the last fifty years, the exploration of Africa has been carried forward with great energy and success. Even now, however, we know less of this continent than of any other of the great divisions of the globe.

Africa lies between  $38^{\circ}$  north and  $35^{\circ}$  south latitude, and between  $18^{\circ}$  west and  $52^{\circ}$  east longitude. A glance at the map of the world will show us two important features of this continent. The first is, that Africa is only the huge south-western peninsula of the great mass of land known as the Old World, of which the other component parts are Europe and Asia. The second feature is that in no other continent does so large a proportion of the area lie within the Torrid zone.

Position,  
shape, and  
noteworthy  
bays and  
capes.

The continent of Africa is bounded on the north by the Mediterranean Sea, on the west by the Atlantic

Ocean, on the south by the Indian Ocean, and on the east by the Indian Ocean, the Red Sea, and the Isthmus of Suez.

We shall be the better able to remember the shape of the continent if we examine it in connection with those bays and capes which are of special interest, either from their historical associations or their geographical position. Let us begin our survey at the north-eastern extremity of the coast. Here is the northern entrance to the Suez Canal, which connects the waterways of the Mediterranean and the Red Sea. Immediately west of this entrance, the delta of the river Nile juts out into the sea, and we find ourselves on the coast of Egypt, a land so familiar to us from its Scriptural associations.

The coast-line, after striking westwards, bends to the south, and forms a huge bay, of which the eastern and western corners are called the Gulfs of Sidra and Cabes respectively. At the western head of this bay stands Cape Bon, the most northerly point in Africa; and just beyond is a small indentation in the coast, on which, close to the ruins of Carthage, stands Tunis, the greatest African port, next to Alexandria, in the Mediterranean Sea.

Westward again, the Algerian coast extends to the Straits of Gibraltar. Frowning cliffs, not so far apart as are Dover and Calais, mark the point at which the continents of Europe and Africa approach most closely.

---

**44.—INTRODUCTION** (*continued*).

THE line of coast after we pass the Straits of Gibraltar immediately bends to the south-west, preserving the same general direction until Cape Verd, the most westerly cape in Africa, is reached.

Three groups of islands have been passed on our way from the Straits of Gibraltar—namely, the Madeiras, the Canaries, and the Cape Verd Islands. A fourth group, the Azores, lies so far out to sea that it can hardly be classed as belonging to Africa. A peculiar interest, however, attaches to these lonely isles, for it was the discovery here of various objects, including a boat, which had been washed up on their shores, that first suggested to Christopher Columbus the existence of a land far to the west, from which these relics must have drifted.

At almost every point on the western shores of Africa we are reminded of the prowess of Portuguese navigators during the fifteenth and sixteenth centuries, and of the love of maritime enterprise shown by their great king, John. From Cape Verd his bold seamen in further cruise pushed round the head of the Gulf of Guinea. The mercantile importance of this coast, with its southern aspect, is sufficiently indicated by the names of the various parts—the ‘Grain coast,’ the ‘Ivory coast,’ the ‘Gold coast,’ and the ‘Slave coast.’ Each navigator sailed a little further than his predecessors: one reached the equator; another explored the mouths of the Congo River; a third, Bartholomew Diaz, more venturesome than the rest, was swept by a tempest round the southern end of Africa and anchored in Algoa Bay, thus passing out of the Atlantic into the Indian

Ocean. The great headland which he discovered in returning home received appropriately enough the title of the 'Cape of Storms,' but King John changed it for a name which has since become famous throughout the world—the 'Cape of Good Hope.' Close by is Cape Agulhas, the southernmost point of Africa.

The news that the limit of the African land southwards had been reached made a great stir at the time, but it was not till ten years later that another expedition started from Portuguese shores. Four ships specially built for the purpose were placed under the command of Vasco da Gama, a man well worthy of the occasion. The king and his court were present, when, amid great pomp, the little fleet glided down the Tagus upon a voyage of discovery which was destined to link Da Gama's name for ever with the passage to India round the Cape of Good Hope. Reaching the furthest point made by Diaz, he skirted the eastern coast of Africa past the bends now known as Delagoa Bay and Sofala Bay. Through the Mozambique Channel, which is bounded on the eastern side by the great island of Madagascar, Da Gama reached the Zanzibar coast, and having set up a pillar about midway on this territory, he struck across the intervening ocean for India.

If instead of following him we continue our journey northwards, along the eastern coast of Africa, we at length reach Cape Guardafui, the most easterly headland of the continent. There we touch the other great route from India, which enters the Red Sea at the Straits of Bab-el-Mandeb, and thence passes along the Abyssinian and Egyptian coasts to Suez at the southern *entrance* of the Suez Canal.

We have thus completed our survey of the coast of Africa; let us now examine the general character of the continent.

Simplicity is its main feature. The outline is so rounded off as to present only one large inward bend, namely, the Gulf of Guinea. Few bays or deep inlets of the sea vary the monotonous coast-line, and almost everywhere a wall of mountains forms the background to a fringe of sea-plains.

Equally simple is the position of Africa upon the globe. The equator almost exactly bisects its length, which in its extreme measurement of 5,000 English miles only exceeds the breadth by a few hundred miles.

The interior of Africa is occupied for the most part by a vast expanse of uplands, of moderate elevation, enclosed by mountain ranges which divide it from the lowlands that border the coast throughout nearly its entire length.

Nor is the hydrography complex. The rivers are few in proportion to the land surface, and nearly all the large lakes are massed in the equatorial regions, where they form a system surpassed in extent only by the great chain of lakes in North America.

Hydro-  
graphy.

---

#### 45.—INTRODUCTION (*continued*).

IN studying the physical features of Africa we may note three great divisions of the land.

(1) The *Plateau of Barbary* extends along the north and north-west coast from 12° E. long. to 10° W. long., and includes the mountain system of the Atlas. This plateau is isolated from the ~~other~~

Natural  
divisions.



mountain systems of Africa, and intercourse between its inhabitants and those of the interior of the country is rendered difficult by the desert which borders its southern slopes.

(2) The *northern desert tract* which stretches across Africa from the Atlantic Ocean to the Red Sea, and occupies nearly all the territory which lies between  $31^{\circ}$  and  $16^{\circ}$  N. lat., extending in places several degrees south of the latter parallel. It is intersected in its eastern quarter by the river Nile, which flows in a northerly direction to the Mediterranean Sea. All the portion of this desert tract west of the Nile is known as the *Sahara*, with the exception of a comparatively narrow section of it extending from the left bank of that river to the 20th meridian of E. long. which is known as the Libyan Desert. East of the Nile the northern part of the tract is called the Arabian Desert, and the southern part the Nubian Desert. The rainfall is very deficient over the whole of these deserts, and consequently the productive districts are limited to the scattered *oases*, and to the narrow strips of country irrigated by the waters of the Nile.

The northern desert tract is also distinguished by a lower average elevation than the rest of the interior of the continent, and it contains fossils of such a kind as to show that some part must have been at some time under water.

(3) The *South African Plateau*, under which term is included the vast expanse of highlands which occupy all the interior of Africa, south of about  $10^{\circ}$  N. lat. This plateau consists mainly of *elevated table-lands* enclosed by a rampart of mountains

the highest of which are on its eastern edge. Within this region, between 22° and 28° S. lat., lies the extensive South African desert known as the Kalahari.

The *Soudan* is another enormous tract frequently referred to in descriptions of Africa. It lies between the equator and the southern confines of the Sahara and Libyan deserts, extending from the Atlantic Ocean to the Abyssinian highlands in the eastern extremity of the Nile regions. This tract cannot, however, be classed as one of the natural divisions of Africa, as its southern boundaries are determined more by the frontier lines of the negro states by which it is occupied than by the physical features of the country.

From the brief survey in this and the preceding lessons we find that the most striking physical characteristics of Africa are—

Summary of  
the physical  
features.

1. The tropical position of so large a part of the continent.
2. The uniform and unbroken character of the coast.
3. The low elevation of the plains which fringe the seaboard.
4. The proximity to the coast of the higher and more continuous mountain ranges.
5. The vast extent and great number of the elevated table-lands which occupy the interior.
6. The wide expanse of the deserts, which from deficiency of moisture are unproductive.
7. The extent of the equatorial lake system.
8. The absence of navigable rivers.

The varied character of African scenery and the unsurpassed beauty of parts of the country have only been revealed to us by recent discoveries. Many of the mountains which diversify the recesses of the Sahara desert are singularly impressive. Dark and sombre in colour, rugged in shape, absolutely devoid of vegetation, and far removed from the habitations of men, they inspire travellers with an indescribable feeling of solitude and awe. In striking contrast with these lonely mountains is the character of the scenery in some of the central parts of Africa. There the eye may rest on lovely green pastures or on cultivated lands, varied here and there by picturesque villages, while elsewhere are charming woodlands in which groves of stately palms are often conspicuous objects. Some of the equatorial forests rival those of the Amazon in the enormous size of the trees and in the luxuriance of the creepers. The vegetation in these forests is so dense that it can be penetrated only along the few narrow paths which have been cut through it with much labour, and which are so closely shaded by the overhanging foliage that the sun casts only a dim light into them even at noonday. These narrow ways are often cut up with footprints of elephants, while the thick undergrowth offers cover to various kinds of wild beasts. Of the lake scenery of Central Africa travellers speak in rapturous terms. Livingstone, the most distinguished of African explorers and missionaries, describes the shores of one of the lakes as an abode in which the angels might well be content to dwell.

---

## 46.—RELIEF OF THE CONTINENT.

GRAND and striking features are not the characteristics of the relief of Africa. The mountains seldom attain very great height; their outlines, with some remarkable exceptions, are too formal to be picturesque; and very few active volcanoes have been discovered.

General character of the relief.

In a subsequent lesson it will be shown how the peculiarities in the relief interfere with the navigation of the African rivers. We must here explain how these peculiarities also exercise a widespread influence over the climate of the continent. Most of the mountain ranges follow the same direction as the coast-line, bordering it in some places very closely, while in others they lie at distances from it of between one hundred and three hundred miles. The natural rampart thus formed round the highlands of the interior is broken by only two important gaps—one where the western extremity of the Sahara desert descends gradually to the shores of the Atlantic Ocean, the other between the Plateau of Barca and the Isthmus of Suez. Towering high above the interior, the encircling ranges intercept the ocean winds, and thus not only cause a very unequal distribution of the rainfall, but also tend to raise the temperature of many regions.

The principal feature in the relief of North Africa is the Plateau of Barbary, a district differing so widely in its physical character from the surrounding regions, that it has already been referred to as one of the distinct natural di-

Mountains near the north-west and north coast.

visions of the continent. Conspicuous in this district is the long chain of mountains known as the Great Atlas, extending from the south-western extremity of the plateau to about  $8^{\circ}$  W. long. on the north coast. One of the peaks of this range has been ascertained to be 11,400 feet high, and others are supposed to attain even a greater altitude. The general elevation of the plateau diminishes as it extends eastward from the Atlas Mountains. A series of gradually descending terraces lies between the high peaks of this system and the lowlands on the coast, while extensive forests, varying in character according to the elevation of the land, cover its slopes.

The only other range of any extent near the north coast of Africa is one known as the Black Mountains, or Jebel es Soda, the height of which is nowhere known to exceed 2,800 feet. This range lies in the dreary realms of the Sahara desert, and runs from west to east at a distance ranging from 200 to 300 miles from the seaboard. Between these mountains and the narrow belt of fertile lowlands on the coast a bare and stony plateau intervenes. We must notice one other highland in this part of Africa, namely, that which is known as the Plateau of Barca, and which projects into the Mediterranean on the eastern side of the Gulf of Sidra; for, though of limited extent, its northern border is rich in springs and vegetation, and its numerous ruined cities attest its former importance in the civilised world.

In the east of Africa a continuous range of mountains stretches from the Nile delta to the south coast. Its northern portion borders closely on the Red Sea, and as far as  $15^{\circ}$  N. lat. is of moderate

Eastern  
mountains.

elevation, the highest mountains ranging between the heights of 6,000 and 8,000 feet. South of that parallel it forms the eastern edge of the South African Plateau; and as far as 15° S. lat. is flanked on its western side by a highland region which extends into the heart of the continent, and includes the highest mountains and table-lands in Africa. The northern portion of these highlands forms the kingdom of Abyssinia, where several mountains rise above the level of perpetual snow, and fertile table-lands are found at altitudes varying from 6,000 to 9,000 feet. Precipitous sides and a fantastic outline are the distinguishing characteristics of the Abyssinian mountains. Immediately south of the equator, on the edge of the plateau, Mount Kenia, one of the loftiest mountains in Africa, rears its snow-capped summit to the height of about 19,000 feet, and a few degrees further south is another snowy peak, of equal if not greater altitude, known as Kilimanjaro. We may add that all the larger lakes of Africa are massed together at considerable heights above the sea in this elevated region. In the southern part of the east coast range are the Drachenberg Mountains, some of which attain a height of 10,000 feet. They form an important frontier, separating the British colony of Natal from the Orange River Free State and from Basutoland. From the eastern sides of the Drachenberg Mountains to the maritime plains of Natal the land descends in a series of terraces—a common feature in Africa; while westward, in the Orange River Free State, it falls with a gradual unbroken incline towards the interior.

---

47.—RELIEF (*continued*).

THE mountains of the south coast form two parallel ranges which cross the continent from east to west.

South coast mountains. The central portion of the northern and the highest of these ranges is known as the Nieuwveld Mountains. Between these ranges lies the Great Karroo, at an elevation of 3,000 feet above the sea. The soil of this vast table-land is poor, the rainfall deficient, and the vegetation scanty. In the extreme south-western corner of Africa an isolated group of mountains juts out into the sea and forms the well-known Cape of Good Hope. The most conspicuous object in this group is Table Mountain, so named from its broad flat summit, which contrasts strangely in appearance with the rugged outline of the surrounding hills.

The mountains on the western edge of the South African plateau have a much lower average elevation than those which border its eastern side. Highest of Western mountains. all rise the Cameroons, an isolated group about thirty miles in length, situated at the eastern extremity of the Gulf of Guinea, and remarkable for containing some of the few active volcanoes hitherto discovered in Africa. The principal summit, which is divided into twin peaks known as Albert and Victoria, attains a height of about 13,000 feet. Here are three craters, from which, according to native report, eruptions have taken place within the memory of man. To a considerable height the chasms and valleys of these mountains are filled with beautiful and varied forests, and far above that *altitude* they are decked with grasses, ferns, and heaths.

Further north, an extensive system known as the Kong Mountains runs from east to west, parallel to the north coast of the Gulf of Guinea, at a distance of about 300 miles from the sea, and the western part of this system extends northwards at about the same distance from the west coast to the southern confines of the Sahara desert. These mountains have been imperfectly explored, but are not known to exceed anywhere a height of 3,000 feet.

The inner regions of Africa may be described as a boundless expanse of table-lands, diversified by few low plains and high mountains. The only high  
*Interior.* ranges in the interior are those already referred to, which extend westwards from the great eastern mountain range into the central lake district. Another interior chain of great length stretches almost across the Sahara desert in a south-easterly direction; but, so far as ascertained, its highest peak does not exceed 7,900 feet, nor is its average elevation great.

A project for flooding the Western Sahara so as to transform it into a vast inland sea was at one time much discussed. This scheme betrayed a complete ignorance of the elevation of the land, since it assumed that the desert was a plain depressed below the sea level. This is far from the truth, for though the Sahara comprises the only low plains in the interior of Africa, and certain portions of it are at a lower level than the Mediterranean, yet recent discoveries have shown that the greater part consists of table-lands varying in height from 500 to 2,000 feet, traversed by mountain ranges of considerable extent, though not of commanding height. The depressed parts alluded to



above are situated at the two corners of the great bay between Barca and Cape Bon. One penetrates from the Gulf of Sidra to the neighbourhood of the Nile delta, and the bottom of this 'is in several points certainly below the level of the Mediterranean.' The other consists of a chain of marshy depressions extending 240 miles westward from the Gulf of Gabes. After the accurate survey of this region made by order of the French Government, there seems no doubt that were a canal cut across the narrow belt of coast-lands, though only a small proportion of the Sahara would be submerged, the waters of the Mediterranean would flow in and form a shallow lagoon, the effect of which would, it is hoped, be to extend the rainfall a little further into the interior.

---

#### 48. — RAINFALL.

THE rainfall of Africa varies so greatly in different parts of the continent, according to local circumstances, that we can refer here only to its conspicuous peculiarities.

The most striking feature in the geography of Africa is the vast northern desert tract, the area of which is equal to about two-thirds that of Europe. In this dreary region there are many districts destitute of both well and river, where years elapse without a shower, and where the traveller may wander for hundreds of miles through a hot wilderness of sand and rocks, dependent for water on the scanty supply carried by his camels. Not a plant of any kind, not a *living* creature, relieves the stillness and desolation of

these scenes; and, except when a wind raises the sand in clouds, every object on which the eye rests is so completely motionless that the landscape resembles rather the picture of some skilful artist than the work of nature.

In some of the oases, rendered habitable by water supplied from underground sources, the people rely so confidently on the long continuance of dry weather, that a heavy downpour exposes them to great inconvenience. It is related that on one occasion the south winds carried copious rains across the Sahara to the district known as Fezzan, and the natives of a certain town who had built their houses of saline mud were dismayed to see them gradually dissolve under the unwelcome visitation.

The lack of moisture in the northern deserts is attributable to several distinct causes, which will be better appreciated if we consider the character of the winds which visit this region. Africa is, as already pointed out, the south-western peninsula of the Old World. The winds, therefore, which sweep over the northern parts of the continent from the east and the north-east have already traversed either Asia or Europe. In their long passage overland, especially where they cross the central Asiatic deserts, these winds have been thoroughly dried; nor do the intervening seas supply to any great extent their loss. The Red Sea is too narrow to supply any notable amount of moisture; but the Mediterranean is of sufficient breadth to afford, under favourable conditions, a considerable rainfall. This last point requires closer examination. Hot winds blowing *across the Mediterranean* from the North African deserts

towards Europe are capable of absorbing a large amount of moisture, which, condensed by the snowy Alpine summits, sometimes produces disastrous floods in Italy. But winds in the contrary direction are first chilled by their passage across these mountains; then sweeping over the Mediterranean they can suck up comparatively little moisture, because of their low temperature. Even this amount has small chance of precipitation when the water-carrying power of the air is so much increased by the heat received from the burning deserts. Thus, whatever rain these northern winds afford falls upon the narrow, cooler belt of coast-land.

We must also remember that these Mediterranean winds are not of a continuous character, and that they blow off the African shores during the summer months.

On the north-west Africa is bordered by the Atlantic, and in winter the prevailing winds set on shore and bring heavy rains. These are, however, precipitated on the high plateau of Barbary, and seldom extend far beyond the inner slopes of the Atlas Mountains. South of this range the western extremity of the Sahara actually reaches the Atlantic; but in these latitudes the winds are in general north-easterly, and it is therefore only occasionally, when they blow from other quarters, that rain is carried over the land.

From the south only very scanty rains ever reach these deserts, for the highlands of the South African plateau and the broad belt of the Soudan intercept most of the moisture swept northwards in summer from the Gulf of Guinea and the South Atlantic and Indian Oceans. The remainder passes over a bare expanse of *heated sand*, a circumstance, as we have already seen,

most unfavourable to precipitation. Indeed, clouds often pass over the lower parts of the Sahara and disappear without any discharge.

Let us now pass to that part of tropical Africa which lies between the northern deserts and 22° S. lat., that is to say, between these deserts and the limits of the territories generally referred to under the term South Africa. With only one unimportant exception, all the coast regions in this division of the continent, as well as the mountain ranges which separate them from the interior, receive a considerable, and in many cases a copious, rainfall, the periods of its occurrence and duration varying, however, greatly under the operation of local causes.

Of the interior regions of this division of Africa it may be said, broadly speaking, that the quantity and duration of the rains diminish in proportion to the distance from the equator. In the belt of land which extends for about two hundred miles on each side of the equator, rains are frequent throughout the year. In this belt the rays of the sun are so nearly direct that they maintain the temperature at a high degree, and currents of air laden with moisture are drawn to it in all directions. Dense forests cover the ground, and their foliage has the same effect as high mountains in condensing the moisture; for we must remember that trees in hot weather always remain comparatively cool. Beyond the limits of the equatorial belt the year is divided into a wet and a dry season, the respective lengths of these seasons varying with the differences of latitude, and the dry intervals occurring alternately in the northern and southern hemispheres, when the dif-

ferences of temperature between them are greatest ; in other words, when the one hemisphere is at the height of its summer, and the other at the height of its winter season. At these periods the most moisture is drawn to the hemisphere where summer prevails, and which is for the time the hotter of the two. Consequently the dry season on one side of the equator is the wet season on the other.

In South Africa, the east and south-east coast regions are supplied with frequent rains from September to April by the south-easterly winds, and during the hotter months of this period the rains extend far inland. Many parts of the interior receive, however, such a scanty rainfall in the wet season, that during the dry weather their stores of water are almost exhausted, and the inhabitants suffer great inconvenience, while on the western part of the interior we find a vast desert, known as the Kalahari, which, though of smaller extent than the stupendous northern desert tract, is almost as dry and barren. The deficient rainfall in this part of Africa is attributable to the facts that between it and the east and south-east coasts high mountains and lofty plains intervene and exhaust the moisture of the sea breezes, and that though the mountains on the west coast are of much less altitude, the winds here blow mainly from the south-west, and rarely extend far inland.

The south-west corner of Africa lies just so far south as to extend into the region of winter winds from the north-west, and receives an abundant rainfall in the cold season ; but further north the coast-lands are dry and sterile, as they lie low, and the scanty moisture

carried by the winds, which rarely here blow inland, passes over the mountain districts to the higher land lying between them and the Kalahari desert.

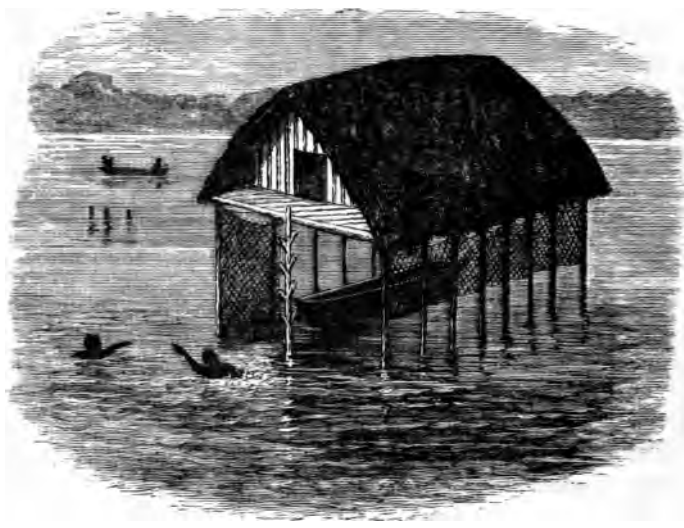
In conclusion, we may add that in consequence of the great South African plateau being so largely enclosed by bordering mountain ranges, and of its central regions being so far from the sea, in few parts of it is the rainfall equal to that of many districts in corresponding latitudes elsewhere. Even in the equatorial belt in Africa the rainfall in any one year has never been ascertained to exceed 100 inches, against a fall of 500 to 600 inches in the wettest parts of India and South America. As compared, however, with the rainfall in most parts of Great Britain, the African equatorial rains are very heavy, for on parts of the east coast of England the annual fall often does not exceed twenty-five inches, and on many parts of the west coast it is less than forty inches.

---

#### 49.—LAKES AND RIVERS.

THE existence of a great lake system in Central Africa was conjectured, if not actually ascertained, by geographers more than two centuries ago, but subsequently the supposition was discredited, and the truth of it has only been proved by recent explorers. They have discovered a number of great lakes situated chiefly in the southern equatorial belt at a considerable elevation above the sea. The largest of these lakes, known as the *Victoria Nyanza*, lies under the equator, and has an area estimated as rather larger than that of Scotland. To the north-west of this lake lies

the *Albert Nyanza*, and immediately to the south of it, and just under the equator, is the lake *Muta Nzige*, whose waters are connected with those of *Lake Tanganyika*—a lake with which the names of Livingstone and Stanley will always be associated. To the south-east of Tanganyika is another large sheet of water called *Lake Nyassa*. West and south of these lakes are numerous



HUT IN A LAKE VILLAGE WHERE ALL THE HOUSES ARE BUILT ON PILES.

others of great size, though small in comparison with the preceding. The lake district of Africa is generally remarkable for the beauty of its scenery. It is very fertile, and possesses much mineral wealth.

In Northern Africa the largest lake is *Lake Chad*, lying between 12° and 15° N. lat., and midway between the *Atlantic Ocean* and the *Red Sea*. Its area in the

dry season is about 10,000 square miles, but during the wet season it spreads itself out to four or five times this size. Although it is fed by several large rivers, one of which is as long as the Rhine, yet none flow from it to the sea, and the whole of its surplus disappears partly by filtration and partly by evaporation. There can be no doubt that its waters ooze far underground, and supply the springs of some of the oases in the Sahara desert. The marshes around this lake are overgrown with reeds and papyrus, and abound with animal life. They are the haunts of hippopotami, which may be seen in herds of a hundred or more. Here also are found crocodiles, rhinoceroses, and elephants, while water-fowl of various species are abundant.

As may be inferred from what has been said of the deficiency of the rainfall over so large a part of the continent, the volume of water in many African  
 Rivers. rivers is small in proportion to the extent of the areas they drain. Of the rivers which flow into the North African deserts, only two ever reach the sea, and only one of these, the Nile, does so throughout the year.

Another common characteristic of African rivers is the frequent occurrence in their courses of cataracts and rapids, which diminish their utility for purposes of inland navigation. The region most favourable for the formation of a navigable river is an extensive basin sloping gradually from the source of the stream to its mouth; but the even flow of many African rivers is interrupted where they descend from the higher to the lower table-lands and to the maritime plains. Between these falls the country is frequently so

Character-  
istics com-  
mon to many  
African  
rivers.



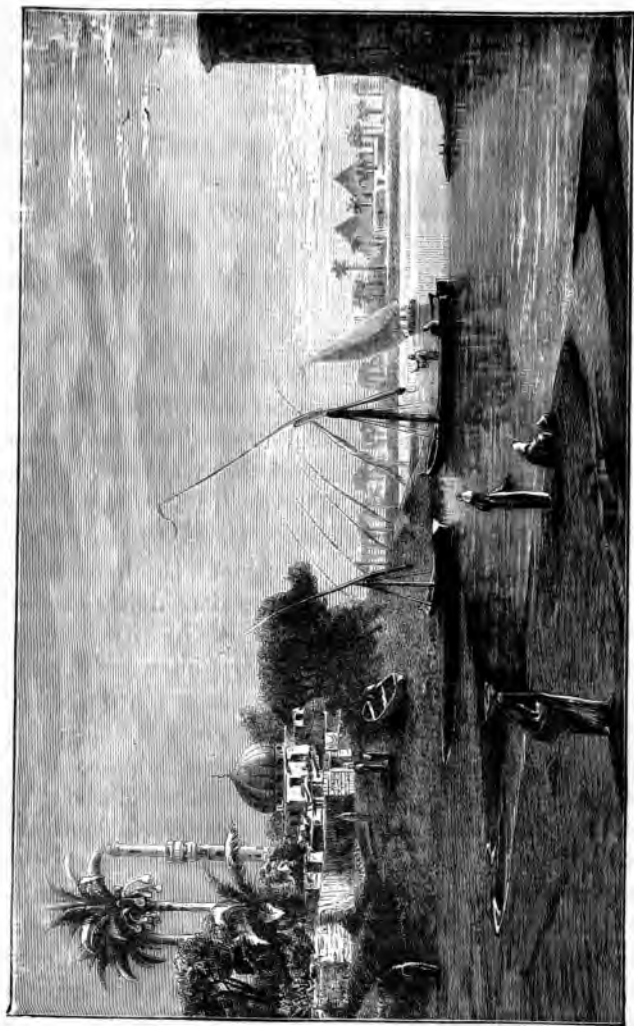
level, that the stream flows slowly and spreads out to a breadth disproportioned to the volume of its water. In the tropical rivers, the sluggishness of the current and the shallowness of the water combine with the heat to foster vegetation, which sometimes becomes so dense as to choke the river and alter its course. This vegetation is often described in the journals of travellers as forming a barrier through which they find it most difficult to push their way. Frequently the rushes in the tropical rivers accumulate matter of various kinds, which in time forms a floating layer of soil, on which plants grow, and so firmly do their roots entwine that a floating island is the result. These compact masses of vegetation are often sufficiently solid to serve as bridges over which men and cattle can pass. The traveller is often startled when crossing these bridges by the upheaving of the flexible mass of vegetation on which he stands, as a hippopotamus dives and pushes its way beneath it.

---

#### 50.—RIVERS (*continued*).

WE will now give a brief sketch of the most interesting of the African rivers, in the order in which we have passed their mouths on our previous survey of the coast. The only river of any magnitude which flows into the Mediterranean is the Nile, the name of which is more widely known among mankind than that of any other river in the world, partly on account of the varied historical associations connected with the countries through which it flows, and partly *because its delta has for ages served as a granary*

whence distant nations have derived supplies of corn. So great, however, were the difficulties of exploring its upper basin, that its sources have only been discovered within the present century. We now know that though in volume of water it is surpassed by many other rivers of the globe, it drains an enormous area, and, as measured along its windings, is 4,100 miles in length from its mouth. Its most distant sources are in the lakes Victoria Nyanza and Albert Nyanza. It issues as a considerable river, at a height of 3,300 feet above the sea, from the former lake, which it connects with the latter. Thence it flows northwards, receiving numerous tributaries between 4° and 10° N. lat. From the latter parallel it continues its course northwards under the name of the White Nile, and receives no considerable affluents till it reaches the town of Khartoum. Here it is joined by one of its most important tributaries, known as the Blue Nile, which has its sources in the Abyssinian highlands. A few degrees north of Khartoum the Nile receives another great tributary from the Abyssinian mountains, known as the Atbara. Both these streams are remarkable for their high periodical floods, and for the great quantity of fertilising mud they pour into the Nile, which, when deposited by the inundations of the river over the land on its borders, has a wonderful effect in stimulating the productiveness of the soil. From the point where the Nile receives the Atbara, it flows northwards in a winding course 1,700 miles long, without receiving a single additional tributary. Within ninety miles of the sea it branches out into two great streams and several small ones, and forms its far-famed fertile



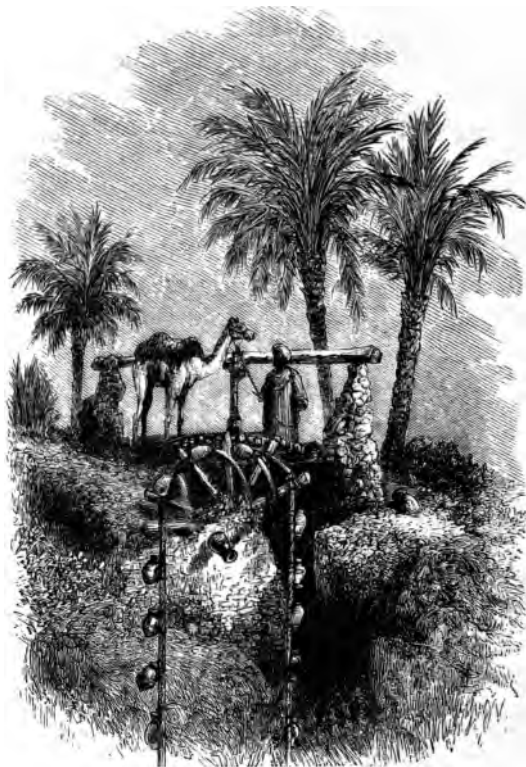
SCENE ON THE NILE.

delta, a flat, low-lying tract more extensive than Wales. The course of the Nile is broken between Khartoum and the delta by six cataracts, which are serious obstructions to its navigation, as only small vessels can pass beyond the first, at a point a little north of the tropic of Cancer. The next, a few degrees south of this line, is impassable at low Nile by vessels of any kind. The upper course of the Nile as far as Khartoum stretches for the most part through dense forests and fertile meadows. Below that town it traverses the northern deserts. The river in this part of its course is in some places closely hemmed in by barren rocks, while in others its banks recede, and enclose verdant and fertile though generally narrow valleys, which present a charming contrast to the wilderness beyond. The fertility of all the Nile regions north of Khartoum is, however, entirely dependent upon the periodical rise of the river. We can therefore understand the feverish anxiety with which this rise is annually watched by the inhabitants, for on its height depends the extent of land which can be irrigated. The process of irrigation is carried out by means of artificial channels, and the great ceremony of opening the dam at Cairo to allow the waters to fill these canals generally takes place about the end of August.

Of the considerable rivers flowing into the Atlantic the most northerly is the *Senegal*, the mouth of which is about 16° N. lat., and a few degrees south of it is the mouth of the *Gambia*. In point of size both these rivers are of the second class, and both have their sources in the northern extremity of the *Kong Mountains*. They are remarkable for the

Senegal and  
Gambia.

rise—sometimes as much as forty feet—which takes place in their waters during the wet season, at which



A WATER-WHEEL NEAR THE NILE.

time the Senegal is navigable for 500 miles and the Gambia for 400 miles from the sea.

*The next river of importance as we proceed south-*  
**wards** *is the Niger, the third river in Africa as to area*

of drainage and volume of water. It has its sources near to those of the Senegal and Gambia, in the Kong

Niger. Mountains, whence it pursues a north-easterly

course to within a few miles of the great town of Timbuctoo, an important emporium for the merchandise brought down the Niger from the south-west, and from Morocco by caravans across the desert. From this point its course is due east for several degrees. It then bends and runs in a south-easterly direction until it receives the Binu, a large tributary flowing from the east. After its junction with the Binu, its course is due south until it reaches the Gulf of Guinea, where it forms an enormous delta much larger than that of the Nile. The river is navigated by British steamers of light draught as far as its confluence with the Binu. A British protectorate has recently (1885) been established along the coast in the neighbourhood of the mouths of the Niger.

Immediately south of the equator is the mouth of the *Ogowai*. Little is known about its source and the upper part of its course.

Ogowai.

---

### 51.—RIVERS (*continued*).

Six degrees south of the equator the *Congo* pours into the Atlantic its stupendous stream, the volume of

Congo. which is larger than that of any other river

in the world except the Amazon. At its mouth it is six miles wide, and has a depth mid-channel of 150 fathoms. Its source has not been fully explored, but is known to be somewhere in the uplands between

Lake Nyassa and a lake a few degrees west of it called Bangweolo, into which the river flows, and thence runs northwards until it crosses the equator at about 26° E. long. From this point it makes a wide curve to the north-west, and then, crossing the equator a second time, flows in a south-westerly direction to the sea. It thus drains a very extensive area, and receives in its long course numerous large tributaries, several of which flow through lakes situated in the western part of the equatorial lake district. In the preceding particulars of the basin and course of the Congo may be found not only the explanation of the extraordinary volume of its waters, but also of the fact that the periodical fluctuations in their height are much less than those of most other tropical rivers. We see that the waters of several of its tributaries pass through one or more large lakes, and these reservoirs in the basin of a river always have the effect of moderating its floods during heavy rains, and of maintaining its stream during the dry season. We also find that a part of its course lies in the equatorial belt, where the rains are heavier and more continuous throughout the year than in the other parts of Africa. Further, that the parts of its basin which lie outside the equatorial belt and in the regions of periodical rains are so distributed between the two hemispheres that the period of the dry season in the districts of its northern tributaries is that of the wet season in the region of its southern ones, and *vice versa*. Unfortunately, the navigation of this magnificent river is interrupted at a distance of only 140 miles from the sea, where, by a succession of cataracts, it descends from the edge of the South African

plateau through a narrow gorge forty miles long. The upper part of the Congo is often spoken of as the Chambesi, and the middle part as the Lualaba, names adopted before it was known that they formed portions of the same river.

So large a part of Africa south of the equator is occupied either by the basins of the Congo and of the rivers which flow into the Indian Ocean, or by the dry wastes of the Kalahari Desert, that little moisture is available to supply the rivers which flow into the Atlantic between the mouth of the Congo and the Cape of Good Hope. Accordingly, on this part of the coast there are few rivers, and not one is of the largest class.

The *Coanza*, which enters the sea a few degrees south of the Congo, is a river which claims a passing notice, because it is navigable for 140 miles from its mouth, and forms a very useful means of communication with a productive part of Africa.

The last river on the west coast to which it is necessary to refer is the *Orange River*, the name of which is familiar to us, as its course marks the frontier line of some of the English and Dutch colonies. It is formed by the union of the Vaal, a river which drains the western slopes of the northern portion of the Drachenberg Mountains, and the Nu Gariep, which drains the western slopes of the southern part of that range. From the point of confluence of these rivers to the sea, the Orange River flows westwards for 500 miles through a region for the most part dreary and barren. Its course lies through precipitous chasms, and it is interrupted by numerous cataracts, one of which is 150 feet in height. The streams which

Orange  
River.



it here receives are fitful torrents, dependent for their supplies on the violent thunderstorms which occur at rare intervals. The river is unavailable for purposes of inland navigation.

On the east coast the first river we encounter in passing from the south is the *Limpopo*, or Limpopo, or Crocodile River. *Crocodile River*. This is a river of third-rate size, navigable for only a short distance from the sea.

The only other river of importance on this coast is the *Zambesi*, which enters the sea in the Mozambique Channel. Its source is in uplands not many Zambesi. hundred miles from the western coast. It

receives numerous large tributaries, drains almost the whole of the area which lies east of its source and between 10° and 20° S. lat., and in volume of water ranks as the fourth river of Africa. The *Zambesi* forms a large delta, through which it sends many branches. The entrances to these are partially blocked by sand-banks, but inside the bars the river is navigable for a distance of 320 miles. The Victoria Falls on this river are described by travellers as surpassed in impressive grandeur only by those of Niagara. Immediately above the falls the river has a width of about 1,000 yards, and suddenly all its waters precipitate themselves into a narrow chasm 100 feet deep and not more than 90 feet wide. The roar of the waters as they plunge into this narrow abyss is heard for many miles, and clouds of spray are seen rising to a height of three or four hundred feet. All the surroundings of the scene tend to enhance its beauty. The numerous islands above the cataracts are picturesquely wooded; the trees, *ferns*, and mosses in the immediate neighbourhood of

the falls, refreshed by the continuous spray, are wonderfully varied, bright, and at the same time soft in colour; and as the ascending column of mist is wafted from side to side by the wind, an ever-changing succession of views passes before the spectator.

## 52.—CLIMATE AND VEGETATION.

EXCEPT in South Africa, in the Mediterranean states, and in the high-lying regions of the continent, the climate is

Heat and  
unhealthi-  
ness of the  
African  
climate.

very hot, and in many districts extremely unhealthy. When we compare this continent with South America, the only other main division of the globe of which the greater part lies within the torrid zone, we find striking contrasts between their physical features. In South America the land so lies as to moderate the heat of the direct rays of the sun. From the high range of mountains on the Pacific coast extensive plains slope gently to the eastern seaboard, and thus expose the surface of the tropical regions to the cooling trade-winds, which blow over them from the vast expanse of the Atlantic Ocean. Laden with moisture, these winds afford abundant rains to the interior, and the dense vegetation thus fostered also contributes to equalise the temperature. In Africa, on the other hand, the principal mountain ranges are so situated as to deprive the interior of the refreshing influence of sea breezes; scorching east winds from Asia sweep over the northern parts of the continent, and the vegetation in the great deserts is too scanty to have any effect in tempering the climate.

The hottest parts of Africa are not, however, invariably the most unhealthy. It is in the marshy maritime plains on the tropical parts of the west coast, where mangrove swamps retain the noxious vapours, and in the dense equatorial forests, visited by frequent rains, that the climate is so pestilential. Its immediate influence is chiefly seen in the dangerous fevers with which strangers are attacked, but its effects may also be traced in the appearance and character of the natives.

The whole of the north and north-west coast of Africa, as far as the western extremity of the plateau of Barbary, is bordered by a belt of fertile land. This region is watered by winter rains, both the quantity and duration of which are much greater in the western than in the eastern portion. The width of this belt varies nearly in proportion to the varying rainfall on its different parts, as the heavier the rains are in any section the further do they extend inland. Thus the fertile districts are very narrow from the Isthmus of Suez to the eastern extremity of the plateau of Barbary; from this point they spread out to a width varying from 200 to 300 miles, and include the entire plateau.

In the low-lying parts of this belt the thermometer seldom falls to the freezing-point, but in the mountainous districts the winter is sometimes severe. The vegetation in the sheltered lowlands is almost tropical in character, while in other places it resembles that of the south of Europe; and in the highlands there are extensive forests of familiar European trees, such as *the ash, oak, elm, maple, cork, and olive*. One of the *most productive* parts of this belt is the delta of the

Nile, which, however, does not depend for its fertility on its scanty rainfall, but on the inundations of the river.

The French colony of Algeria includes most of that part of the plateau of Barbary which borders on the Mediterranean Sea, and has become a favourite winter resort for European invalids. In the dry summer season Algeria is, however, far from a pleasant abode. During this period hot winds from the desert sweep at intervals over the country, and fill the air with minute particles of sand, which are one of the causes of the eye diseases so prevalent in Northern Africa. Pestilential marshes are still found in parts of Algeria, but the French have improved the climate by artificial drainage; they have also introduced plantations of a very fast-growing Australian tree, recently introduced into Europe and Africa, called the *Eucalyptus globulus*. It has a marvellous power of absorbing the moisture in marshy land and of neutralising the baneful influence of miasma.

### 53.—CLIMATE AND VEGETATION (*continued*).

IMMEDIATELY south of the region which has just been described stretches the vast expanse of the North African deserts. Its climate is remarkable for dryness, the causes of which have been already explained, and for the extraordinary difference in temperature between day and night. The Arabs, speaking of the heat in the Sahara and Libyan Deserts, say, 'The soil is like fire and the wind like a flame.' Eggs can be hatched in the sand, and at times men are unable to walk on the burning soil without a thick protection for their feet. But although the heat in the daytime is

intense, yet, in consequence of the clearness of the atmosphere, radiation takes place so rapidly during the night that the thermometer sometimes falls to the freezing-point. Even in winter, when the range of temperature is least, it varies in some places as much as 28° F. in the course of a few hours. The climate of the deserts, except in the swampy oases, is healthy, and indeed beneficial in certain cases of lung disease.

The North African deserts are liable to terrible sand-storms, and occasionally in summer hot suffocating winds blow from the interior of the Sahara northwards as far as the Alps, retaining even to that distance much of their oppressive character and a great deal of sand. The oases in the deserts are of various kinds. Some parts of the highlands are watered by brief periodical rains, and for a few months their slopes and valleys break forth into luxuriant pasturage; but most of the oases depend for their fertility either on natural springs, or on water which reaches them by surface drainage or through subterranean channels. This water is largely supplied by the rivers which flow into and lose themselves in the deserts. The kinds of vegetation most common in the oases are grasses, several kinds of low shrubs, and the lofty date palm, which supplies a large part of the very frugal fare of the inhabitants.

Of the regions which lie between the northern deserts and the territory included under the term of South Africa we shall adopt the following concise description:<sup>1</sup> Under the equator, and for several degrees on each side of it, the frequent rains and the great heat 'have

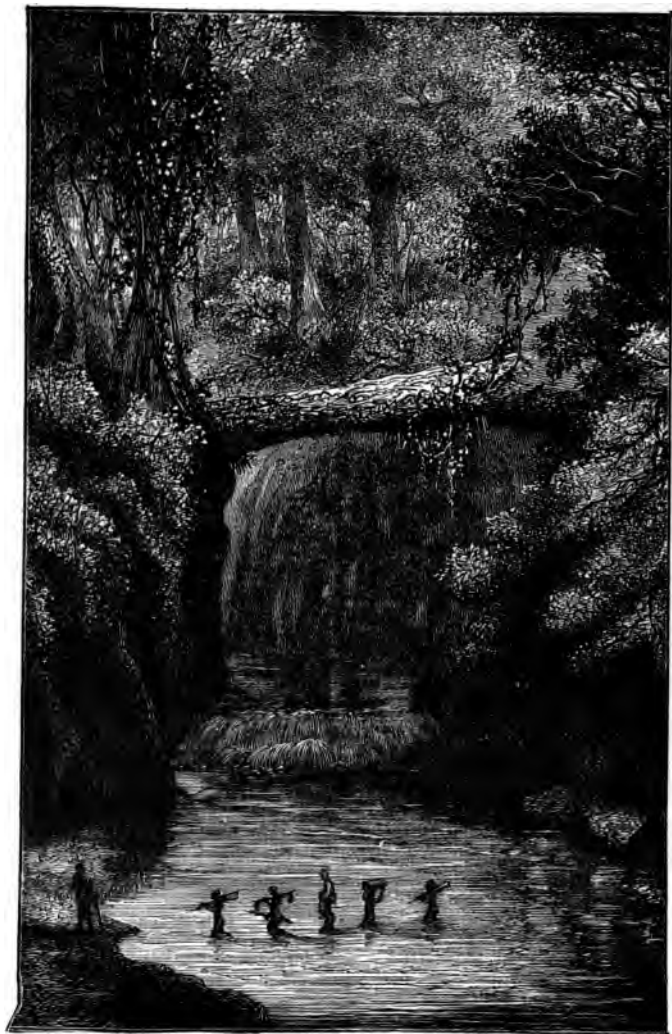
Regions  
between  
the North  
African  
deserts and  
South  
Africa.

<sup>1</sup> Johnston's *General Gazetteer of the World*.

produced a broad belt of tropical forests, and of rank and almost impassable vegetation. On each side of this central belt, to the south and north, where the rainfall is not excessive, a park-like country takes the place of the forests, and this again merges into grass-lands and prairies in the Soudan, and in the corresponding Zambesi region in the south.'

It is difficult to form an adequate idea of the enormous height of some of the trees in the equatorial regions, unless we compare them with objects familiar to us. The height of a good English house of two stories, from the ground to the ridge, is about thirty-three feet. Let us then try to realise the size of some of these trees, which attain a height equal to eight or nine times that of such a dwelling. Cameron thus describes a forest scene in Central Africa :—' And what trees they were ! Standing on the edge of a ravine 150 feet deep, these giants of the sylvan world were seen springing from its depths ; and looking upwards their trunks were lost amongst the dense foliage at an equal height above our heads ; magnificent creepers festooned the trees, and here and there some dead monarch of the wood was prevented from falling by the clinging embraces of these parasites which linked him to some of his surviving brothers. The ground was damp and cool, and ferns and mosses grew luxuriantly.'

The Kalahari Desert occupies a large part of the centre of South Africa, between 18° and 26° E. long., and 22° and 28° S. lat. This desert is not so dry as the deserts in the north, but the rains are only occasional. The vegetation consists of patches of grass and low shrubs, between which intervene bare sandy



FOREST SCENE IN CENTRAL AFRICA.

tracts. The western side is much more barren than the eastern. Among the plants are certain kinds capable of absorbing and retaining great quantities of moisture, and of thus surviving long periods of drought. These plants are most useful, since they serve as little reservoirs of moisture when all other supplies have failed. One of them has tuberous roots which grow a little way beneath the soil, and various are the methods adopted by the natives to discover them. Sometimes they use tame baboons to scent them out; sometimes they strike the ground to ascertain their position by the sound of the blow. Another of this class of plants is a kind of water-melon, which after an unusually abundant rainfall springs up in such quantities as literally to cover the ground.

The territory south and east of the Kalahari Desert is for the most part included in the English and Dutch colonies; and as the former have been described in an earlier book of this series, we shall only very briefly refer to their climate and vegetation.

In the east coast regions the soil is productive, forests clothe the deep valleys, and the plains are covered with rich pastures which supply food for sheep and cattle and innumerable wild animals. Maize, wheat, cotton, sugar, and coffee in small quantities are cultivated by the inhabitants. West of the east coast mountains the rains become less copious, and as the country receives less moisture in the wet season, the supply from natural stores becomes very inadequate during the dry months. Thus the table-lands in the south of Africa called the Karroos, which during the rains are covered by pastures, in the dry season become *baked and arid plains*.



#### 54.—CLIMATE AND VEGETATION (*continued*).

WE will now describe a few of the more widespread or interesting of the African plants.

The *cork tree*, which grows abundantly in the forests of the plateau of Barbary, is a kind of oak. Its bark is stripped off every six or seven years, soaked, flattened, charred, and shaped into the ordinary bottle-corks, bungs for barrels, and other useful articles.

North  
African  
plants.

The *vine* has of late years been cultivated in Algeria with marked success, the annual export reaching nine million gallons of wine. It is also largely grown in the southern temperate regions of Cape Colony.

A species of *lotus* grows in North Africa. Its fruit, which is about the size of a wild plum and has a sweetish taste, was in ancient times, and is still, a principal element in the diet of the poorer people. This plant is not to be confused with the *lotus-lily*, a flower held sacred by the ancient Egyptians.

Two kinds of palm are met with in the desert. The *date palm* is by far the most important tree which grows there, but its graceful form (especially when the branches are clipped as at Cairo) and valuable fruit have been described in the Asiatic lessons. In striking contrast to this tree is the *doom palm*, a species peculiar to Africa. It is remarkable for the repeated forking of its stem, and for the inner rind of its fruit, which consists of a spongy dry substance—in taste like gingerbread—used not only as food, but to produce a cooling draught in cases of fever. The doom palm is found in Egypt, and even forms forests on the *very edge* of the desert.

Desert  
plants.

Another product of the desert is the *camel's thorn*, a thorny evergreen plant about eighteen inches high, on which camels browse in places where no other food is to be obtained. This shrub yields a kind of manna.

The *papyrus* rush, a species allied to the almost extinct paper-reed, often covers the swamps of the Nile. From the latter plant was made the paper used by the ancient Egyptians. Thin slices, cut lengthwise from the best part of the stem, were placed side by side so as to lie across those forming the layer beneath. The mass was then watered, beaten smooth with a wooden tool, and after pressure had been applied it was dried in the sun. On this flimsy but durable material are preserved some of the most interesting records we possess of the history and manners of the ancient Egyptians.

*Acacias* are very abundant in tropical Africa. From the stem and other portions of the tree exudes a gum, of which the most important variety is gum arabic, an article of considerable commercial value to the district of Senegambia and to Egypt. In Egypt the pods of another species are used in tanning.

Of the tropical palms which grow south of the desert, the *coco palm*, *sago palm*, and *oil palm* deserve especial mention. From the fruit of the last-named tree is obtained palm oil, which is annually exported in large quantities to be used in the manufacture of candles and soap, and in greasing the wheels of railway carriages. The natives eat it as butter and put it in their soups. The *butter tree* has similar uses.

*Ground-nuts*, the seeds of the *cola tree*, are also eaten by the natives, and imported into England.

But most wonderful of all African plants is the *baobab*. Though this tree never attains a great height, its trunk sometimes measures thirty feet in diameter, and the smallest twigs, which grow in fantastic shapes, are not less than two inches in circumference. The chief marvel of the baobab tree, however, is its age. Humboldt, the distinguished naturalist, speaks of it as 'the oldest organic monument of our planet;' and Adanson, also a naturalist of high repute, calculated the age of a specimen which he saw in Senegal to be at least 5,000 years. This calculation is supposed by other botanists to be somewhat exaggerated, but there is no doubt that the life of this tree sometimes extends over several thousand years. What an endless train of thoughts must pass through the mind of the traveller who rests beneath the shade of one of these ancient trees! Recalling the earliest Bible lessons of his childhood, he may picture the tree which shelters him as growing in the days when Abraham wandered forth from his Chaldean home. Kingdoms have risen since, kingdoms have decayed. The learning of Egypt, the art of Greece, the power of Rome, all have passed away; but the baobab still puts forth its leaves exactly as of yore, a living witness to the changeless laws of nature in contrast with the unstable rule of man. In old age the baobab generally becomes hollow, and is used as a temporary dwelling, in which as many as twenty men can sleep. During the rainy season the hollow space is often filled with water, and is useful as a cistern in the dry weather.

The *tamarind tree* is a native of both Indies, but it is now cultivated in Africa as in most other hot countries.

A very hard timber is afforded by the *African teak*, a tree which is not botanically a teak at all. The wood, however, 'though nearly one-third stronger than English oak or Malabar teak,' is so weighty as to limit its use in shipbuilding to parts which require great strength, such as decks, beams, and keelsons.

Among the most remarkable plants in South Africa



BAOBAB TREES.

are the *euphorbias*, which vary in size from a small shrub to a tree. In appearance they are strange plants with prickly stems, some species being so leafless as to resemble the cactus, others possessing such brilliant flowers as to be cultivated in this country for their beauty. The sap of all the *euphorbias* has a more or less milky look. It is employed by the natives to poison their arrows.

But perhaps the most striking forms of vegetation in South Africa are the *heaths*, as remarkable for the beauty of their colouring as for their occasionally

gigantic size. Of these heaths 300 species are known. 'The Cape *bulbs* and *orchids* are also famous, and cover the ground in the months of September and October with a sheet of blossoms that resembles nothing so much as a shower of gaudy butterflies.' *Geraniums* grow wild in great profusion.

Crops of various kinds are grown chiefly in the more temperate regions of both North and South Africa.

General  
crops of  
Africa.

Wheat, barley, maize, durrha, rice, coffee, tobacco, sugar, and cotton may be specially named. Yams and cassava are tropical farinaceous plants. The common *durrha* is stated to be the principal African corn-plant. Another species, also called *Kafir-corn*, grows in South Africa. It is remarkable for the height of its stalk, which exceeds that of a tall man.

## 55.—ANIMALS.

THE animal world in Africa is even more remarkable than that of Asia for the enormous size of many of its quadrupeds. In both continents the largest species are found in the torrid zone.

The African *lion* is of greater size and strength than the Asiatic lion; he is found in parts of North Africa and throughout the south of the continent, except in the districts where the white man has permanently established himself. Thence the king of beasts slowly retires to regions over which his sovereignty is less disputed. The tiger is not found in Africa, but the *leopard* is abundant in wooded districts, especially in South Africa. The skin is among some

Carnivorous  
animals.

tribes regarded as a mark of royalty. *Hyenas* are common throughout the greater part of the continent, and may be considered as more characteristic of Africa than of Asia. At night they often enter the villages in search of food, and fill the air with their discordant cries. *Jackals* are also common in many parts of the continent. The following passage describes a scene witnessed in the Kalahari Desert by a British officer who devoted several years to hunting in South Africa:—‘It was bright moonlight, and I could see six large lions, about twelve or fifteen hyenas, and from twenty to thirty jackals, feasting on and surrounding the carcasses of the two rhinoceroses which I had killed. The lions feasted peaceably, but the hyenas and jackals fought over every mouthful, chasing one another round and round, laughing, screeching, howling, and chattering without intermission.’<sup>1</sup>

It is, however, in the number of enormous herbivorous animals that this continent surpasses all others.

Herbivorous animals. In it are found the largest kinds in the world, namely, the elephant, rhinoceros, hippopotamus, and giraffe, the last two being peculiar to Africa. The largest of apes is an inhabitant of Africa, and among the numerous species of antelopes are some of unusually large size.

The African *elephant*, unlike the Asiatic one, is not now domesticated, but in former times it was tamed by the Carthaginians and used by them in war and as a beast of burden. It is distinguished from the Asiatic elephant by its greater height, by the size and shape of its ears, and by several other peculiarities. Formerly it

<sup>1</sup> Gordon Cumming.

was very abundant in parts of the continent, but it has been so mercilessly slaughtered by the ivory hunters that it has become extinct in many of its old haunts, and there is reason to fear that, if the present system be pursued, it will before long be utterly exterminated.

The *hippopotamus*, or river-horse, is a huge unwieldy creature, ordinarily measuring twelve feet in extreme length, five feet in height at the shoulders, and having a girth round the thickest part of the body almost equal to its length. Herds of twenty to forty individuals live together on the banks and in the shallow courses of rivers, subsisting upon grasses and aquatic plants. One peculiarity of the animal is the long time during which it can remain under water. Harpooning is a favourite method of capturing the hippopotamus, but pitfalls dug in its daily path are also employed for this purpose. It is hunted for the value of its ivory, its flesh, and its hide, as well as to prevent the damage which it inflicts upon the crops even more by trampling them underfoot than by its huge meals.

The other great mammal peculiar to Africa, the *giraffe*, is graceful, and contrasts in almost every respect with the hippopotamus. Standing eighteen feet from head to foot, it is furnished with a deer-like head, with neck, legs, and tail of extraordinary length, and a short but elegant body of an orange-red colour mottled with darker spots. To complete the contrast, it has large, lustrous, and peculiarly expressive eyes, capable of a good deal of play; as they are also rather prominent, the animal is enabled to enjoy a wide range of vision *without* turning the head. Its very flexible neck and *great length* of limb allow the giraffe to browse upon

the leaves of trees out of the reach of other animals ; indeed, it finds great difficulty in putting its mouth to the ground, a feat which is accomplished by wide straddling of the fore-legs.

It is much assisted in selecting its food by the wonderful character of its tongue, which, while eighteen inches in length, can be contracted at the tip into so narrow a compass as to pass within the pipe of an ordinary pocket key. The large tuft of hair at the end of its tail, aided by the thickness of its skin, enables the creature to ward off the terrible attacks of the African insects, to which we shall shortly refer. The giraffe is an absolutely silent animal, but not solitary, the herds being on the average about sixteen in number.

South Africa contains two species of wild ass, known as the *zebra* and the *quagga*. These animals wander about in herds, the zebras frequenting the more hilly portions of the country, while the quaggas are found chiefly on the level table-lands. Both animals are marked with dark stripes, but those of the quagga are fewer and less distinct than those of the beautiful little zebra.

The *Cape buffalo* is another of the gregarious animals with which South Africa abounds, and which render this country the happy hunting-ground of the sportsman. A buffalo-hunt is, however, not unattended by danger, for these creatures are very fierce, and will sometimes turn with wonderful quickness upon their pursuers and gore them with their short powerful horns.

The varieties of the *antelope* family in Africa are almost innumerable, and vary in size from the *eland*,



which is nearly as big as a large ox, to a most graceful little creature scarcely larger than a fox terrier. The best known of the antelopes are the gazelle, found in North Africa and common in some parts of Asia, and the South African eland and *spring-bok*, so called because it moves over the ground in a succession of leaps. The *gnu* is one of the most extraordinary of the antelopes, and his large shaggy head with its short curved horns



GIRAFFES AND ZEBRAS.

bears more resemblance to that of a bull than to the head of any member of the family of antelopes. There are one or two kinds of antelope which are believed to be capable of existing either entirely or for very long periods without drinking water. They are found in parts of both the northern and southern deserts, where the vegetation, though scanty, supplies them with sufficient food.

The *gorilla* of Western Africa is the largest and one of the most interesting of apes ; its height when full grown is about five feet six inches. The natives hold this hairy monster in dread, not only for its great strength and ferocious looks, but for its resemblance to man, which has given rise to a belief that in it dwells the soul of a departed king. Gorillas inhabit the thickest jungles on the banks of the Gaboon, a small West African river near the equator. The *chimpanzee* is another gigantic African ape. Monkeys of various kinds are very numerous in the forests, and among them is the large, fierce, dog-headed baboon tribe. Some of the latter are very mischievous in their habits, and have frequently been known to pelt with stones persons who intruded on their domains. They also cause great destruction to crops and fruits.

---

#### 56.—ANIMALS (*continued*).

AFRICA is very rich in birds, of which the following are some of the most remarkable. The *ostrich* is a native of the African deserts. Its beautiful feathers are valuable articles of commerce, its flesh and eggs provide the natives with food, and the egg-shells are manufactured into cups, spoons, water-bottles, and other useful household utensils. Its enormous nests are shallow holes scooped out in the sand, and each generally contains a large number of eggs. During the day the eggs are deserted and kept warm by the heat of the sun, but at night the parent bird sits upon them. One egg weighs about three

Birds.

pounds, and contains as much nourishment as two dozen fowl's eggs of ordinary size. The ostrich is very fleet, and it would be almost impossible for a man on horse-back to overtake one, were it not that it generally runs in a curve, and thus is at a disadvantage with a mounted huntsman who follows a direct course.

The *guinea-fowl* in its wild state is peculiar to Africa. These birds fly in large flocks of from four hundred to five hundred, and are found in many parts of the continent. The *secretary-bird*, a native of South Africa, is held in great esteem by the inhabitants for the deadly warfare it wages on snakes. It fearlessly attacks even the most venomous kinds, and soon destroys them with its powerful beak. As a reward for such valuable services its life is protected by law in some parts of Africa. The little *honey-bird* is remarkable for the way in which it tries to lead the traveller who follows it to the nests of the wild bees. It first attracts his attention by chattering and twittering close to him, and when it sees him prepared to follow flies on in front, looking back occasionally, until it reaches the spot where the honey is; over this it hovers for a moment, and then perches on a neighbouring branch, waiting for its share of the spoil. The family of carrion-feeding birds is largely represented in Africa, where they are of inestimable service in clearing off refuse.

Reptiles are much less abundant in Africa than in other tropical countries, probably in consequence of the dryness of the climate. The principal reptiles are crocodiles, serpents, some of which are venomous, lizards, turtles, and tortoises. The African

Reptiles.



A GORILLA.

*crocodile* is found in most of the rivers. It is of a brownish green colour, and is sometimes thirty feet in length. Its voracity frequently leads it to attack human beings, and there are numerous instances in accounts of African travel of men who have been seized by this river monster.

The tsetse fly, the locust, and the white ant are worthy of special notice among the swarms of African insects. The *tsetse fly* infests certain localities Insects. in the interior of the South African plateau. Its bite is fatal to some animals, and among them horses, mules, and oxen, which cannot exist in the districts infested by it. Dr. Livingstone, during his last journey into the interior of Africa, lost all his beasts of burden one after the other from the attacks of this fly.

The *locust* belongs to the same family as our little English grasshopper, and is common in parts of South Africa. At certain seasons of the year swarms of these insects assemble and migrate, in masses dense enough to darken the whole air. Their track is marked by desolation; leaves, fruits, crops disappear as if by magic. Nevertheless, they are not without their uses, for they furnish food to men and every kind of beast. The *white ants* are as destructive in Africa as in Asia.

Fish abound in most of the African rivers and lakes, and furnish valuable food to the natives. Certain tribes, however, entertain so strong a prejudice against this kind of diet, that they Fish. would rather starve than eat the fish swarming in the waters round them.

*Among the most useful domestic animals of Africa*

are the camel (introduced into North Africa by the Arabs), the ass, the horse, sheep, and cattle.

Domestic  
animals.

In South Africa cattle are not only employed as beasts of burden, but form the chief wealth of many of the native tribes, who consume their flesh and milk, and use the hides, which they are very skilful in tanning, for a variety of purposes.

### 57.—POPULATION.

AFRICA is peopled by a multitude of tribes descended from several distinct races, characterised by wide differences in appearance, religion, language, and civilisation. Some of these tribes retain

Mixed character and classification of the population.

unmistakably the distinguishing peculiarities of their early ancestors, while in others the original marks of their race have been modified by climate or by the other circumstances of their lives. Inter-marriages between people of distinct races have added to the varieties of the African population, and there are many tribes of such mixed descent that they cannot be classed in any of the great divisions of mankind. To frame a complete classification of such a population is impossible, but we shall adopt a recent one, based chiefly on language, which we believe conveys the clearest description at present attainable of the distribution of the various races of the continent.<sup>1</sup> It is as follows :—

<sup>1</sup> The authority referred to is 'The African Races Philologically Classified,' by Prof. A. H. Keane, in the appendix to the volume on Africa by the late Mr. Keith Johnston in Stanford's *Compendium of Geography and Travel*.

1. The *Arabs*, who are numerous in all the states bordering the Mediterranean Sea, and are thinly scattered over the northern deserts and along the east coast as far south as the mouth of the Zambesi River. From this coast they are gradually extending their trade and influence through the interior of the tropical regions.

2. The *Hamites*, who form a large part of the population in all the regions north of the Soudan, and in the regions immediately west of Cape Guardafui.

3. The *Fulahs*, who are settled in the northern part of the basin of the Niger, and the land which lies between it and Lake Chad.

4. The *Negroes*, whose chief abode is the Soudan, from the Atlantic Ocean to the upper waters of the Nile.

5. The *Bantus*, who inhabit all the country south of about 6° N. lat., with the exception of the south-western corner of Africa.

6. The *Hottentots*, who inhabit the south-western corner of Africa from the tropic of Capricorn to the Cape of Good Hope.

Of these races the Arabs only have migrated into Africa during the historic period.

Besides these leading races, which form the great majority of the population, there are others whose attributes do not enable us to class them with any of the foregoing; also a few dwarfish tribes, who are supposed to be the miserable remnants of the primeval inhabitants; Turks and Jews, of whom small numbers inhabit the Mediterranean states; and, lastly, the *European colonists*.

We will now give a short description of the races which we have enumerated.

The characteristics of the *Arabs* and their conquests in Africa are referred to in the lessons on Asia. In

*Arabs.* Africa they have intermarried with the

Hamites, and occasionally with the Negro races, and some of the Arabs in the north have inherited Spanish blood from ancestors who had contracted marriages with the people of Spain during the Mohammedan occupation of a part of that peninsula. Thus, few of the Arab population are of absolutely pure descent.

In Egypt a mixed race, descended from the ancient Egyptians and their Arab conquerors, forms the majority of the agricultural population, and is known by the name of *Fellaheen*. The Arab nomads in the northern deserts are of purer descent, and resemble in almost all respects the Bedouins of Arabia. In Africa the Arabs are generally distinguished for their love of trade, spirit of enterprise, and domineering character. They have carried their commerce through the greater part of the country, have extended their influence and their religion to its innermost regions, and in several instances have established their rule over Negro or Bantu states.

The migration of the Hamites into Africa took place at so remote a period that there are no historical

*Hamites.* records, or even vague traditions, which throw light upon it. Their physical features and

character, however, have so much resemblance to those of the Arabs, that both these races are believed to have occupied in some very distant age a common home in Asia, and to have been one people originally. To the Hamite race belonged the Egyptians of Scriptural times,



and the Numidians and Libyans of ancient history. The dialects of the numerous Hamite tribes now differ superficially from one another, but all of them retain peculiarities in common which indicate their derivation from one original language.

The most important divisions of the Hāmites are the Berbers, the Tuaregs, and the Copts. The *Berbers* form a large part of the poorer population of the plateau of Barbary and of the oases of the Sahara desert. They have, like the Arabs, slim muscular bodies, brown,



TUAREG CHIEF.

sunburnt complexions, and in youth handsome regular features. They are Mohammedans, but do not practise some of the rites to which other Mohammedans attach great importance; and, although the use of wine is strictly prohibited by their prophet, they at times drink it to great excess. They rarely show wandering tendencies, and seldom move far from their place of abode. The *Tuaregs* are nomads who inhabit that part of the *Sahara* desert which lies between the northern bend of



BERBER WOMAN AND CHILDREN

the Niger River and the states of Algeria and Morocco. They are, physically, a very fine, handsome race, warlike and hardy, and are all Mohammedans. Their moral code is in some respects a low one, but it has its redeeming points. They are honest among themselves, and food and other articles of value are often left unguarded in the desert, as they consider it a breach of faith to appropriate one another's property when found under such circumstances. The *Copts* are a Christian sect who inhabit Egypt. As their religion has been a barrier to their intermarriage with other races, they have retained more resemblance to the portraits of the ancient inhabitants of that country, as seen on the old monuments, than any other African tribe. They are skilful mechanics and jewellers, and useful as secretaries and accountants.

---

#### 58.—POPULATION (*continued*).

THE *Fulahs* are sometimes classed as a Negro tribe, but their language differs from that of every other African people, one peculiarity in it being that it does not make any distinction between the masculine and feminine gender. They also differ from the Negroes in many other respects. Their hair is less woolly, their features often handsome, and their complexion a reddish brown. The women are frequently attractive in appearance and manners, and the people generally are intelligent and energetic. They were converted to Mohammedanism in the eighteenth century, and have since waged several religious wars with the neighbouring pagan tribes, some of whom they

have conquered, and they have thus founded important kingdoms, in which they are the predominant power. Agriculture occupies much of their time.

The Negro tribes differ widely in many respects from one another, according to the regions they inhabit.

The physical characteristics of the typical  
Negroes.

*Negroes* in the pestilential plains on the west coast may be thus described. The hair is woolly, the forehead low and retreating, the nose broad and flat, the cheek-bones high and prominent, the lips thick and protruding, the skull very thick, while their heels project spur-fashion far out behind the leg. Their bodily strength compares favourably with that of the inhabitants of other tropical lands; they are capable of doing very hard work in hot climates, and there is a singular equality in the strength and size of the sexes. The preceding description is, however, only partially applicable to many of the people classed as Negroes, some of the finest tribes inhabiting the healthier regions of the Soudan being very superior in personal appearance and in mind to the Negroes of the maritime plains. The most distinctive defect in the character of many of the race is a childishness of disposition, and a want of originality or enterprise, so that when left to themselves they remain in a very degraded state. On the other hand, they possess in a singular degree qualities which open their minds to the influences of civilisation. They are very free from dislike to foreigners, are easily led by people of higher culture, and readily adopt the manners, feelings, and opinions of those with whom they live. Thus, Negroes who have lived much among English people are often heard boasting of the exploits

of Nelson and Wellington as if those heroes belonged to their own race.

In disposition they are affectionate, and their fidelity and attachment to those who are kind to them are often most remarkable.

The Negro children, when properly taught, are very quick in acquiring knowledge, up to about the age of fifteen, when they become comparatively dull. But when their race has for some generations had the advantages which other races have long enjoyed, they may improve materially in this respect. Indolence is one of the vices attributed to Negroes, but it must be remembered that the climate of their native land is hot and relaxing, the soil productive, and their wants, in their present stage of civilisation, few and simple. Under such circumstances, men never are industrious. The cruelties which horrify us in the accounts of Negro life are generally either prompted by superstition, or are attributable to the despotic authority exercised by the chiefs over their people. In truth, the faults of the Negroes were formerly too often exaggerated in order to justify the cruel way in which they were enslaved; and as the prejudices thus created still exist, the race is often very unfairly judged.

The dwellings of the Negroes vary much in shape, size, and structure. They are of one story, but sometimes include several rooms, and occasionally stand in large courts, enclosed by a palisade or hedge. The walls are generally of sun-dried mud, or canes woven into basket-work, and the roofs are thatched with leaves or reeds. Windows and chimneys are almost unknown, *but the cooking is often done in a separate hut.*

**59.—POPULATION** (*continued*).

THE various *Bantu* tribes speak many different dialects, all, however, having certain peculiarities in common which prove them to be offshoots of the same *Bantus* mother tongue. It is in the southern and coolest parts of Africa that the finest of the *Bantu* tribes live, and, as their territories are in the neighbourhood of the British colonies, these are the races of which we know and hear most. They are generally spoken of by the colonists as *Kaffirs*, an Arabian word meaning an infidel.

The most remarkable of the *Kaffir* people are the *Zulus*, who inhabit the district between the Drachenberg Mountains and the sea. The history of the kingdom of which they now form a part illustrates in a striking manner the energetic, independent character which especially distinguishes the *Bantus* of the south-eastern regions of Africa from the *Negroes*. Early in this century *Chaka*, a *Zulu* chieftain, acquainted himself when in banishment with the discipline and formation of an English regiment. On his return to his native land he enrolled a large number of his subjects into an army, in the formation of which he adopted some of the principles of the English military system, which he combined with very original ideas of his own. He thus created a force which could be effectively manœuvred in battle, and disciplined it by rules wonderfully adapted to stimulate the ambition and valour of his troops. With the aid of this army he conquered several of the neighbouring pastoral tribes, forcibly changed the

peaceful habits of their lives, and united them with his own subjects into a formidable military nation. His successors followed in his footsteps, until at length the extent and power of the Zulu kingdom alarmed the European colonists. These were the circumstances which led to the recent war between the British forces and the Zulus, in the course of which one of the English regiments was skilfully surprised and almost annihilated, and on another occasion the son of the late Emperor of the French was killed. The war resulted finally in the defeat of the Zulus, and the captivity of their king, Cetywayo. That the abilities displayed by Chaka and his successors are not rare among his race, is proved by the fact that several of the generals to whom he had confided the command of some of his armies threw off their allegiance to him, and conquered independent kingdoms for themselves in other parts of Africa. The mass of the people are gay and thoughtless, but intelligent, fond of jokes, and given to arguments, which they often conduct very cleverly.

The two other Kaffir tribes who are brought by their position into the closest intercourse with the European colonies in South Africa are the *Bechuanas* and *Basutos*. They inhabit regions lying between the Kalahari Desert and the Drachenberg Mountains, and they are distinguished from the coast Kaffir by a less warlike and more submissive temperament. The Basutos have acknowledged the British rule, and their territory now forms part of Cape Colony. Bechuanaland has lately been placed under British protection.

Many of the Kaffirs are now in possession of fire-arms, but their native weapon is the assegai, which can

be used as a spear or dart, and consists of a wooden shaft with a sharp iron head.

All the Bantu tribes have woolly hair, and generally dark, reddish brown complexions. Their figures are frequently gracefully formed, and their features finer



KAFFIR HUTS.

than those of the Negroes, the southern tribes especially having generally good and well-developed foreheads.

In the separate descriptions of the Negroes and of the Bantus, to avoid repetition, we have not referred to the characteristics common to both of these races, and we shall now do so.

Character-  
istics com-  
mon to  
Negroes and  
Bantus.

Extraordinary instances of long life are reported



from Africa, and though it is difficult to verify them with certainty, there is no doubt that the natives occasionally attain a great age.

All the tribes of both these races are subject to chiefs, whose authority is absolute, except in so far as it may be restrained by certain customs and superstitions, which they do not venture to disregard. They are, for the most part, licentious, cruel, and capricious, utterly indifferent to the welfare of their people and to the value of human life, and are often drunkards.

Polygamy is common to all the tribes, some of the chiefs having so many wives that they do not even know them by sight. As is always the case among a barbarous people, the women do the hard work.

Cannibalism exists among the more degraded tribes, and is occasionally practised by the less barbarous ones, but its prevalence has been much exaggerated.

The clothing of the Negroes and Bantus consists of cloth or skins, and, except on state occasions, seldom extends above their waists or below their knees, some of the tribes going about almost naked. They all, however, find an opportunity for the display of personal vanity, by dressing their hair in an infinite variety of strange fashions, by adorning themselves with strings of beads and other ornaments, and frequently by tattooing and colouring their bodies. The women of some of the equatorial tribes have a singularly hideous way of disfiguring their faces. They perforate the upper lip and insert a piece of wood or stone into it, gradually increasing the size of the piece until the lip often protrudes as much as two inches outwards at a right angle *to the nose*, thus making their speech very indistinct.

The currency used for petty cash transactions by many of the tribes is a kind of little shell found in the Indian Ocean and called a *cowrie*, of which shiploads are sent to Africa. The primitive plan of barter is generally resorted to for large transactions, and slaves



AFRICAN GIRL WITH UPPER LIP ARTIFICIALLY PROTRUDED BY THE  
INSERTION OF A PIECE OF WOOD.

are used in many parts of the country as a convenient medium of exchange.

Both the races we are describing have a rude knowledge of the arts of agriculture and pottery, and show considerable skill in the forging and manufacture of iron, which, however, they chiefly use for the purposes of war and the chase.

Tobacco is a luxury highly appreciated by man in every clime, and in every stage of civilisation; all the races of Africa freely resort to it, the Negroes and Bantus using the leaf both in the form of snuff and for smoking.

---

### 60.—POPULATION (*continued*).

THE *Hottentots* are among the immediate neighbours of our fellow-countrymen in South Africa, some of their domains being included in Cape Colony, and *Hottentots*, thence extending northwards between the west coast and the Kalahari Desert as far as Wal-fisch Bay. They are supposed to have once occupied a much wider area, and to have been crowded into their present narrow quarters by the encroachments of their more energetic neighbours, the Kaffirs. With the exception of their woolly hair, the *Hottentots* have no marked physical features in common with the Kaffirs. Their complexion is of a muddy yellow shade, and in this respect, as well as in others, their faces resemble those of the Chinese. The *Hottentots* who have been brought into close intercourse with Europeans have adopted several of the customs of civilised nations, and Christianity has made some progress among them. Those, however, who have not been under foreign influences are in a very degraded state. They appear to have no religion, and so primitive are their ideas of government that the authority of one of their chiefs never extends beyond the village in which he lives.

*Among the tribes who cannot be classed as belong-*

ing to any of the principal races of Africa are the nomads of the Kalahari Desert, termed *Bushmen*. They vary in stature and intelligence; those who *Bushmen.* inhabit the northern borders of the desert, where the country begins to improve, being superior in both these respects to their southern kindred who occupy its more dreary and barren regions. The latter are little people, but wiry and active. Of government



NATIVE POTTERY.

they have not the rudest conception, as they acknowledge no head or chief, and even their family ties are very loose. They hardly ever cultivate the soil, have no domestic animals, except a few half-wild dogs, and live either in caves or in huts made of a few boughs arranged as a framework and loosely covered with mats. Roots, eggs, and the flesh of wild animals, or of the cattle they steal from their more settled neighbours, form their staple articles of food. Their only weapons

are rude bows and arrows, but they make these formidable by smearing the tips of the arrows with poison.

The Bushmen show considerable skill in the art of cattle-stealing. They select for their booty the cattle in districts on the borders of the desert, into the heart of which they can quickly retreat with their plunder, and where water is so scarce that it is difficult for any one to follow them. For their own wants the Bushmen provide beforehand by concealing in the sand along the line of their intended retreat the shells of ostriches' eggs filled with water. Even when the owners of the stolen cattle overtake the thieves, they often fail to save their property, as the Bushmen, before abandoning their prey, may wound the cattle with their poisoned arrows. Low as is the position which the Bushmen take among the races of mankind, they are not wholly without appreciation for some of the social arts. They are fond of music, and have some simple musical instruments of their own, while their caves are adorned with rude carvings and outline drawings representing men and animals.

Of the dwarf races of Africa, who are supposed to be the remnants of the primeval population, little is known, but vague rumours of their existence are referred to by the writers of antiquity, and recent explorers have seen specimens, in an equatorial region, of the *Akka* tribe, the men of which when full grown do not average more than four feet ten inches in height. Their heads are very large in proportion to their bodies; the lower part of the face *projects like that of an ape*, and their limbs are badly *formed*.

Jews are found in the Mediterranean states, Upper Egypt, and Abyssinia; they are treated with great harshness and contempt by the Mohammedans, but have nevertheless succeeded in amassing considerable wealth by their shrewdness, and they retain here, as elsewhere, most of the distinguishing characteristics of their race.

Jews,  
Turks, and  
European  
colonists.

Turks are scattered in small numbers throughout all the Mediterranean states.

The principal European colonists in South Africa are of English or Dutch birth or descent, and in North Africa of French extraction. The English, French, and Portuguese Governments have possessions in the various parts of the tropical coast regions, but in these districts Europeans do not thrive, and they seldom make them their permanent abodes.

---

### 61.—POPULATION (*continued*).

THE only people who have adhered to the Christian religion from the earlier ages of the Church are the Copts, and some of the inhabitants of Abyssinia. The Copts are a Hamite tribe scattered through Egypt, and are a remnant of the ancient people of that country. The people of Abyssinia were converted to Christianity early in the fourth century. Since their conversion they have been surrounded by the enemies of their faith, and for nearly a thousand years were separated from and forgotten by the rest of Christendom. During this long period of isolation their religion has degenerated into the performance of empty and

Religions  
and super-  
stitions.

unintelligible ceremonies, and its moral precepts are almost disregarded.

Missionaries are now making great efforts to disseminate Christianity among the heathen population; but their progress, though steady, is slow, and so far they have not succeeded in converting one entire tribe. This result is not, indeed, surprising, as savages naturally hesitate to adopt a pure religion which sets before them so high a standard of duty. To limit himself to one wife, to keep no slaves, to practise moderation in eating and drinking—these involve changes indeed in the daily habits of a native chief.

Mohammedanism is the religion of the Arabs, and of all the Hamites except the Christian Copts and the Pagan Gallas, a tribe who inhabit the regions immediately south-west of Cape Guardafui. It is also professed by the Fulahs and the most civilised of the Negro tribes, and is spreading with marvellous rapidity through the heathen population in the tropical parts of the country. This religion seems to commend itself readily to the people of Africa, as it does not lay down rules so much opposed to their habits and customs as are the precepts of Christianity. For instance, it countenances alike slavery and polygamy. Furthermore, the Mohammedan races show little or no reluctance to mix in familiar intercourse, or even to intermarry with their Negro and Bantu proselytes. This characteristic of the followers of Mohammed has greatly aided them in spreading their faith and their influence.

All the Africans who have embraced neither Christianity nor Mohammedanism are abandoned to the most *degrading* forms of idolatry. A vague idea of the

existence of a Supreme Being glimmers dimly through the dark Paganism of the Negro and Bantu tribes. He is rarely, however, the object of their worship, which is directed to various kinds of idols or to unseen imaginary spirits, to whom they attribute the weaknesses and often the worst passions of mankind, and whom they endeavour to conciliate by gifts, and sometimes by the sacrifice of animals or even human beings.



IDOLS WORSHIPPED IN CENTRAL AFRICA.

All the Negroes and Bantus believe in a future state, and many of the tribes suppose that the ghosts of the dead revisit the earth in the forms of animals, to revenge themselves on their relatives if the latter neglect the customary offerings. On the death of a chief or his wife, many persons are frequently buried alive in the same grave, in order to serve the deceased in various capacities in the future life; for instance, young girls to be the chief's future wives.



The Negroes and Bantus are also firm believers in the arts of magic and sorcery.

The slave trade will for ever remain associated in history with the continent of Africa, and its consequences have been so pernicious to the welfare of the people that no description of Africa would be complete without an account of its origin and growth.

Slavery has existed in Africa from time immemorial, the victims having been captives either taken in open war, or kidnapped, persons condemned for their crimes, or driven by poverty to exchange their freedom for a bare subsistence. So long as the slaves remain in their native districts their lot is seldom hard, and differs little from that of the tribe with which they live. The cruelties, however, which attend their transport to distant parts of Africa or to foreign lands are terrible. We need not here refer to the slave trade with America, as its history was included in an earlier book of this series, and it has now wholly ceased.

But the slave trade continues to be the curse of the tropical regions, slaves being sent thence in great numbers to other parts of the continent, and to the neighbouring parts of Asia. The Portuguese settlers sometimes still profit by it; though the principal slave traders are now the Arabs on the east coast of Africa, and the Indian merchants who have settled there assist them with their ships and capital, and share their profits. British war-ships are now employed on the east coast of Africa to stop the traffic; but some of the *African* ports are so near to Asia that it is difficult to capture the slave traders on the short voyage between

them. The trade, therefore, has not been effectually checked ; on the contrary, it is extending farther into the interior. Nor is it possible to exaggerate its disastrous consequences. Parts of the country have been depopulated by the wars, to which the traffic gives rise, between the different tribes, and by the transportation of so many captives to distant lands. The following description of its results in one district, and of the horrors which accompany it, may be taken as a fair illustration of its character in other regions:—‘Livingstone marched for seven days through an utterly uninhabited country, through districts which were formerly peopled. The slave traffic has left its impress in the most fearful way upon this country. Along the route lie the skeletons of slaves, killed by their drivers, for the Arabs as well as the Portuguese are in the habit of killing all who become faint or wearied on the march. Here and there a carcass was seen bound to a tree ; once a whole troop of starving wretches was met with who had been left to perish on the way for lack of provisions, and as the sun went down two hyenas appeared at a little distance waiting for the death of the unfortunates.’ The most effectual check to the foreign slave trade will probably be found in the spread of legitimate foreign commerce. Its influence would increase the demand for African products, and by thus enhancing the value of home labour would make it more profitable for the chiefs to retain their subjects in their native land, than to sell them as slaves.

---

## 62.—INFLUENCE OF THE PHYSICAL FEATURES UPON THE HISTORY OF THE CONTINENT.

FROM the earliest ages of which we have any knowledge the regions bordering the Mediterranean Sea have been the seat of nations renowned for their advanced civilisation, spirit of enterprise, and military power. Some of the ancient kingdoms were on the north coast of Africa, while those on the coasts of Europe and Asia had an easy access to this region by the waterway provided by the Mediterranean Sea and by the narrow Straits of Gibraltar. Inspired by insatiable ambition, several of these nations had at various times pushed their conquests into the distant parts of Asia. Rome, in particular, had not only extended her rule over the whole Mediterranean coast and more than half of Europe, including even our own little outlying island, but she had despatched her victorious legions to the very threshold of India. Yet, ever hungering for fresh territory as were these restless nations, Nature proved herself too strong for them in Africa. The Sahara desert remained from first to last the border-land of their farthest conquests.

Extraordi-  
nary seclu-  
sion of the  
interior of  
Africa from  
the earliest  
ages.

In modern times, nations as daring and as enterprising as any of those of old have for more than two hundred years held possessions on the west and east coasts of Africa ; but until the early part of the present century their knowledge of the interior tropical regions was limited to vague hearsay ; and to them, as to the ancient settlers on the north coast, the tropical part of the interior remained an untrodden land.

*Our present object is to trace the causes which up*

to so recent a period secluded a large portion of Africa from the outer world. Let us first consider the difficulties which have beset the path of the explorer, who is generally the pioneer of civilisation, for rarely until he has made known the resources and character of a barbarous country do missionaries, merchants, conquerors, or settlers venture into it.

Explanation of this seclusion. Next to a railway a water-way provides the easiest means for the conveyance of men and merchandise from one part of the world to another. In a country in which few or no railways as yet exist, water-ways are therefore of inestimable value. But so peculiar are the natural features of Africa, that of all the great divisions of the globe she alone does not possess any uninterrupted water-way to the remoter parts of the interior. The coast-line of Europe and Asia is deeply indented by sheets of water open to vessels of the largest size, as, for instance, the Baltic, the Black Sea, the Persian Gulf, and the Bay of Bengal ; while numerous rivers are continuously navigable far inland by vessels of moderate size. Though America has a less varied coast-line, this disadvantage is abundantly compensated by the network of navigable rivers which extend precisely over those parts of the continent furthest removed from the seaboard. In Africa, on the other hand, no far-reaching inlets of the sea enable the explorer to approach the central regions by ship, and there is not one river up which he can proceed even in a small boat for more than about five hundred miles above the mouth before his voyage is stopped by impassable waterfalls or rapids.

These peculiarities in the natural features of Africa are by *no means* the only ones which have hindered the

progress of geographical research ; but it may be said of all the other obstacles to its success, that they would have been comparatively of little moment had Africa possessed a more extended system of inland navigation. We shall be better able to see the force of this statement if we consider in some detail the circumstances of African travel.

As a good, and by no means an exaggerated, illustration of the difficulties in the face of which this continent has been explored, we may refer to Commander Cameron's journey across Central Africa, from Bagamayo, opposite the island of Zanzibar, on the east coast, to Loanda on the west coast. The blessing of a convenient currency is unknown in the interior, and all payments are made in such articles as beads, ivory, cloth, guns, ammunition, or cowries. Cameron had therefore not only to carry with him all the necessities of life, which could not be obtained on the route, but also the bulky articles required to purchase supplies from the natives and to pay the frequent tribute extorted from him by the chiefs. An expedition is thus hampered by cumbersome baggage, which has to be carried by a numerous train of troublesome savages or on the backs of animals, for in few parts of Africa are there any roads on which wheeled conveyances can be used. Accordingly, though Cameron only took with him supplies for his urgent wants, and the instruments for his scientific observations, yet the party on their departure comprised no fewer than 192 porters, 6 servants, 35 soldiers, and 22 donkeys. The expedition was subjected to frequent vexatious delays by the disobedience or laziness of the *men*, and the capricious conduct of the chiefs through

whose dominions it passed. It suffered frequently from bad food and want of water ; all the donkeys died from the hardships they endured, and Cameron lost many of his men from desertion, and some by death. Every day brought with it new troubles and anxieties. He was frequently laid up by the fevers so common in many parts of Africa, and, after trials and dangers which lasted nearly two years, he ended his journey in a destitute condition, and so ill that had he remained only a few days longer without medical aid his life would probably have been sacrificed.

How wonderfully would Cameron's hardships and troubles have been lessened had he been able to accomplish the greater part of his journey by following the course of some long navigable river, such as the Rhine or the Ganges ! Were rivers of this class open to the African explorer, he could journey inland in a commodious vessel abundantly supplied with food and the other necessary stores, and would always have at hand the priceless luxury of an inexhaustible supply of fresh water. The vessel might be manned by a small crew of trusted men, and in his floating dwelling the traveller would be well able to protect himself against the attacks and exactions of hostile or extortionate natives.

We must add that in some of the barren deserts the scarcity of water and food is much greater than in any of the districts crossed by Cameron. The introduction of the camel into Africa by the Arabs has lessened the difficulty of traversing these dreary wastes, but to the original inhabitants of the continent, who were ignorant of its uses, they were almost impassable.

Most of the obstacles which the physical features of

Africa have offered in the past to the opening-up of the country may no doubt be overcome in time by the aid of modern inventions. Already many good roads and some railways have been constructed in the English and French colonies, and many of the rivers which are blocked by falls and rapids may be made passable for steamers by means of such locks as are common in our canals. But, in the absence of these artificial appliances, it is difficult to exaggerate the influence which the natural obstacles to locomotion in an uncivilised country exercise over the destinies of its people. Of course most of the difficulties which attend the journeys of small parties are still greater obstacles to the transport of merchandise and to the march of armies. Hence, in the natural peculiarities of Africa may be traced the main causes of the past isolation of the interior tribes, and of the tardy spread of foreign trade, enterprise, and ideas among them. To the same causes may also be attributed the fact that these tribes have not been conquered by their ambitious neighbours.

---

### 63.—POLITICAL DIVISIONS.

EGYPT has recently, from various causes, become a country of great importance in the political and the commercial world. The interest, however, with which present circumstances invest it still remains subordinate to that which is excited by its early history, and by the fact that at a time when the whole of Europe was plunged in the darkness of barbarism, the lower valley of the

Egypt and  
the other  
dominions  
of the  
Khedive.

Nile was the seat of an advanced civilisation, and was inhabited by a people who had made great progress in science, philosophy, and art.

Until about the year 340 B.C., and during a period which is supposed by many students to have lasted for at least 4,000 years, Egypt was governed by a succession of monarchs known as the Pharaohs. The information which we possess concerning this portion of Egyptian history is gathered partly from the Bible and partly from the writings of Greek authors, but chiefly from the inscriptions, sculptures, and paintings with which the ancient tombs are covered, and from the papyrus rolls which have been at various times discovered in the sepulchres.

From these sources we learn that the monarchy of the Pharaohs was more or less despotic in its nature. Indeed, some of the sovereigns in the earlier times seem to have been almost absolute; but subsequently the influence of the priesthood and of the military order acted as a check upon the power of the king. The common people were never allowed a voice in public affairs, but were generally oppressed and miserably poor.

The Egyptians were, as we may infer from the nature of the country, mainly an agricultural people. They paid particular attention to the irrigation of the soil, and for this purpose constructed, with wonderful skill, canals, dams, dykes, and even artificial lakes. The great landed proprietors are frequently depicted on the walls of the tombs overseeing the work of their labourers in the fields, and there are also numerous drawings of various agricultural processes, such as

Government,  
occupations,  
science, arts,  
and religion  
of the  
ancient  
Egyptians.



sowing the seed, gathering in the harvest, and threshing out the grain.

The Egyptians made great progress in the sciences of geometry, astronomy, mechanics, and architecture; indeed, in all these subjects they anticipated by thousands of years much of the knowledge afterwards arrived at by every other nation with whose history we are acquainted. They were also skilled in many arts—in sculpture, which they so employed as to suggest with force the feelings and ideas they designed it to inspire; in weaving, in metallurgy, in the manufacture of pottery and of a great variety of musical instruments.

It is difficult to understand clearly the religion of the Egyptians. They acknowledged the existence of a supreme God, but nevertheless they worshipped a number of inferior deities, and even regarded as sacred several kinds of animals, including bulls, crocodiles, and cats. The most interesting of their gods was Osiris, whom they believed to be just and good, and to be the judge who, after the death of men, determined, according to their merits, their misery or happiness in a future state. It is probable, from the great attention which the Egyptians paid to the burial of the dead, that they had some belief which connected the due preservation of the body with the future of the soul. Thus, when an Egyptian died, his corpse was embalmed, swathed in numerous linen bands, and then enclosed in a kind of pasteboard case made so as to represent as faithfully as possible the form and features of the deceased. The case was covered with hieroglyphics and pictures. The body thus preserved is now called *a mummy*. When the process of embalming and

enclosing the corpse was completed, the mummy was carried with much ceremony to the tomb; but even there it was not forgotten. Numerous services were performed in its honour, and the sepulchre was decorated by the survivors with offerings and ornaments of the most costly description.

---

#### 64.—POLITICAL DIVISIONS (*continued*).

THE architecture of the ancient Egyptians was chiefly remarkable for a massive grandeur which combined sublimity of effect with great simplicity of detail, and for a solidity which has enabled many of their edifices to defy for thousands of years the ravages of time. This latter quality was partly the result of the Egyptians' belief in a future state, which inspired their efforts to express in their temples and tombs an idea of durability which should remind them of the immortality of the soul; partly, also, of their desire to preserve the mummies in safety. It is to these feelings, mingled with the love of pomp and vainglory, that we owe the pyramids—the far-famed tombs of the Egyptian kings. These stupendous monuments were built chiefly on the edge of the desert, where it bounds the narrow fertile valley of the Nile, and they may still be seen rearing their lofty pointed summits among the rocks and yellow sands, some of them almost as perfect as in the days when Pharaoh's subjects gazed upon them. The pyramids are generally in groups of two, three, or more, and round them are clustered the ruins of the less imposing

Architec-  
ture and  
funeral rites  
of ancient  
Egypt.

tombs which served as graves for the subjects of the kings. These consist of small stone tombs, and in some cases of grottoes, excavated in the solid rock. The best known of these burying-grounds is the Necropolis of Memphis, which extends for a great distance along the edge of the desert in the neighbourhood of that town, which is now completely in ruins, but which was for a long time the capital of Egypt under the earlier Pharaohs. The necropolis contains several pyramids, and among them the great pyramid of Cheops, which is 450 feet high, and has a base the side of which is 746 feet long. With the exception of the chamber which contained the bodies of the king and of one or two of his relatives, and of the narrow passages which lead to it, the pyramid is solid throughout, and the masses of stone used in building it are in some instances of enormous size.

The pyramids are not, however, the only marvels of Egyptian architecture. The ruins of numerous beautiful temples still exist, and bear silent witness to the past greatness of the kings who built them and whose names may still be deciphered on their walls and columns. Some of these temples were approached between rows of gigantic statues representing kings, gods, or idealised animal forms. In Thebes, which became after Memphis the capital of the Pharaohs, are the ruins of the great temples of Karnak and Luxor. These sacred edifices were formerly connected by a street two miles in length, which was guarded on each side by a succession of gigantic figures with the heads of rams. The sphinx, *a monster* with a human head and neck, and the winged *body of an animal*, was one of the most popular figures


in Egyptian architecture. It possessed some religious meaning, with the precise nature of which we are not acquainted. The largest existing sphinx is carved out of a rock. It is more than 188 feet long, and a small temple is built in the space between its front paws. The obelisk was another favourite form with the Egyptian architects. It consists of a single block of



PYRAMIDS AND SPHINX.

stone cut in the shape of a four-sided pillar, and gradually tapering towards the top. We cannot, however, doubt that the triumphs of Egyptian architecture were secured by a lavish expenditure of human labour, and at the cost of much suffering; but life was little valued by despots, and the taskmaster was ever present to urge with his lash the strong and the weak alike. In the Bible history of the Israelites we learn what impossibilities the Pharaohs occasionally

demanded from their subjects, and of what cruelties they were capable when their desires were not gratified. This knowledge invests with a certain tragic interest those mighty ruins, which if they tell us of the glory of the Egyptian kings, tell us also of the sufferings of their people.

The drawings and writings on the tombs and the papyrus rolls are of unsurpassed interest, for from them we not only learn most of what we know of the history and civilisation of ancient Egypt, but we can also trace the early history of written language. The earliest writings of the Egyptians, called hieroglyphics, were generally carved in stone. They represented a great variety of objects which had some obvious connection with the ideas they were intended to convey. For instance, a star was indicated by an image of one as it is seen twinkling in the darkness, thus ✧; while the idea of night was represented by the image of a star with the sky above it, thus . Simple outlines of men and animals were also used, the meaning of these representations varying according to the attitudes in which the figures were drawn. But this kind of writing was as laborious to the scribe as it was tedious to the reader. Gradually the method improved, and in order to simplify the signs used they were made more and more conventional—that is, they represented less closely the ideas which they were intended to convey. Ultimately the system was developed by the Egyptians into one under which they represented the sounds which conveyed their ideas in their spoken language by mere signs, just as we now express our meaning in writing by the aid of the letters of the alphabet.

Hieroglyphics of Egypt.

**65.—POLITICAL DIVISIONS** (*continued*).

SINCE the days of the Pharaohs Egypt has experienced many vicissitudes. In the year 331 B.C. the country

History of  
modern  
Egypt.

was conquered by Alexander the Great, and after his death it passed under the rule of the Greek dynasty of the Ptolemies, who held it until the conquest of Egypt by the Romans (30 B.C.). For many years the valley of the Nile formed one of the most fertile provinces of the Roman, and subsequently of the Byzantine, Empire. In 640 A.D. it was conquered by the Arabs, and Arab influence has ever since remained predominant in the country, although the government of Egypt was wrested from them by the Turks in the beginning of the sixteenth century. For a long time the wretched land suffered all the evils of Turkish misrule; but the famous Pasha Mehemet Ali, in the beginning of this century, did much to emancipate Egypt from the authority of the Porte, and her vassalage is at present little more than nominal. There is, however, still very much in the political and social state of the modern Egyptians which requires reformation, and the prosperity of the mass of the people is hindered by oppressive taxation.

The Khedive, or ruler of Egypt, has been gradually extending his dominions beyond the limits of Egypt proper, and the territory now subject to him reaches as far south as the equator, and includes the whole of Nubia and a great part of the Eastern Soudan. A very mixed population, the exact number of which it is impossible to estimate, but consisting of Arabs, Turks, Jews, Copts, Negroes, Europeans, and half-castes, inhabit

this domain. The population in proportion to the area is undoubtedly small, as we may infer when we remember how much of the land is included in the deserts. The most important event in modern Egyptian history, and one which is likely to prove far more beneficial to the country than the territorial additions to the Khedive's dominions, has been the cutting of the Suez Canal, which was finished in 1869, and unites the Red Sea with the Mediterranean, thus completing a much shorter uninterrupted water-way between Europe, Southern Asia, and South-eastern Africa, than the one round the Cape of Good Hope. This canal is not artificial throughout its whole length, as there are on the isthmus several natural lakes which it connects in its course, and thus utilises as a part of the water-way. The construction of the canal was both a difficult and a costly enterprise, and its successful accomplishment may justly be regarded as one of the greatest engineering triumphs of the nineteenth century.<sup>1</sup>

The chief towns in the Khedive's dominions are  
Chief towns of Egypt. Cairo, Alexandria, and Port Said, in Egypt proper, and Khartoum in Nubia.

*Cairo*, situated on the east bank of the Nile, is the capital of Egypt and the largest town in Africa. Its citadel, which is built on a slight eminence, is celebrated for the splendid view which it commands. At the spectator's feet lies the vast city, surrounded by gardens and groves enclosed with strong walls and towers, and rendered picturesque by the domes and minarets of

<sup>1</sup> In the description of Egypt no reference is made to recent *political events*, as they have not, up to the present time, resulted in *any resettlement* of the country.

numerous mosques, which rise above the mass of houses and impart to the town that graceful, half-fantastic



A SHOP IN CAIRO.

beauty which is a peculiar characteristic of Arabian architecture. Behind the city is the verdant plain watered by the Nile; on the other side are the white



rocks and the yellow sands of the desert stretching back as far as the eye can reach ; while on the western and south-western horizon the pyramids of the Necropolis of Memphis rise in massive grandeur against the cloudless blue sky. Notwithstanding its picturesque appearance, Cairo was not in former times a desirable place of residence. The filth and squalor of the miserable hovels in which the poorer classes huddled caused constant outbreaks of fever and other diseases. The streets, too, were narrow, irregular, and badly lighted ; but recently many improvements have been made, and Cairo now possesses several fine roads, squares, and buildings in European style.

*Alexandria* was founded by Alexander the Great, 330 B.C. It soon rose to be the most important commercial city in the world, and also became the centre of the social arts and literature of the Greeks—a position which it retained for three centuries. About thirty years before the birth of Christ the city was conquered by the Romans, and from that time its prosperity began to decline. Under the Arabs the importance of Alexandria still further decreased, and it was reduced to its lowest condition by the diminution of its trade when the passage to India round the Cape of Good Hope was discovered. Since the opening of the overland route to India. Alexandria has regained some of its commercial importance. The new or European part of the town is well built and clean, and is lighted by gas ; but the Turkish quarter is dirty, irregular, and overcrowded.

*Port Said* is situated at the northern extremity of the Suez Canal, and Suez at the southern extremity. *Port Said* is a small modern town, which owes its exist-

ence and importance entirely to the construction of the canal. *Suez*, a seaport belonging to Egypt in old times, is built chiefly in the Arabian style. *Khartoum*, which stands at the junction of the Blue and the White Nile, is a great centre of traffic, and the point to which all the caravan routes of the country converge.

---

### 66.—POLITICAL DIVISIONS (*continued*).

THE state of *Tripoli* lies west of Egypt, and is governed by a pasha appointed by the Sultan of Turkey.

*Tripoli.* The fertile land in this kingdom is limited to some regions of small extent on the coast.

The seaport of the district, which like the state is named *Tripoli*, is the capital of the country, and is a place of considerable commercial importance, for European goods are brought hither by sea to be exchanged for the produce of the Soudan, which is transported across the desert by caravans.

*Tunis*, a small state west of *Tripoli*, is, like that country, nominally a dependency of the Turkish Empire, and is subject to a governor called the Bey.

*Tunis.* It is chiefly interesting to us because it contains the ruins of the city of Carthage, which proved so terrible a foe to Rome during the early growth of her power, and was only subdued after a series of wars which are among the most famous that history records. *Tunis*, an important seaport, is the capital town.

The modern state of *Algeria* was in former days part of the Roman Empire. Subsequently this territory was overrun by the northern barbarians who broke the

power of Rome, and in the eighth century it was conquered by the Arabs. At a still later period the famous Turkish pirate Barbarossa succeeded in establishing his authority in Algeria. For many years after his death the country continued to be ruled by governors appointed by the Sultan of Turkey, and became notorious for the piracies of its inhabitants, who were the terror of all sailors navigating the Mediterranean Sea, and of the people who dwelt upon its shores. These robbers were not content with taking property, but also carried off men to sell them as slaves. It was not until the early part of this century that their piracies were finally suppressed. Algeria was then conquered by the French, who have since, in spite of repeated revolts of the people, maintained their supremacy in the country. Their presence has secured the commerce of the Mediterranean Sea from the danger of piracy, and they have done much to develop the rich mineral and agricultural resources of the land. *Algiers* is the capital. It is beautifully situated on a crescent-shaped bay, and, on account of the mildness of its climate, is much resorted to during the winter by consumptive patients.

The principal exports are cotton, tobacco, sheep, oxen, and iron ore.

The early history of *Morocco* is very similar to that of *Algiers*. It also formed part of the Roman province of Mauritania, and was overrun by some of the northern races who broke the power of Rome. Finally it was invaded by the Arabs, who, founding a kingdom here, proceeded to fresh conquests in Spain. When, after a long rule in that peninsula, they were at last expelled from it in the sixteenth century, *Morocco*

became a refuge for many of them, and the Arabs continue to be the ruling class among the numerous pure and mixed races which form the population of this country. The Sultan or Emperor of Morocco is an almost absolute sovereign. The population are fanatical Mohammedans, so that it is dangerous for any person who is not supposed to hold their faith to travel in the interior. The principal towns are Fez, Morocco, and Mequinez, in each of which the sultan alternately holds his court. *Fez* is the great commercial centre of the country, and also the chief seat of the manufacture of leather, for which the Moors are famous. It is a pleasantly situated town, and when seen from a distance appears very picturesque, as it is adorned by numerous groves and gardens and by minarets and domes ; but it is badly drained, the streets are narrow and filthy, and the practice of leaving the carcasses of animals unburied outside the city walls, and of burying the dead without coffins, only a few feet beneath the soil, poisons the atmosphere. *Morocco* was once a large and flourishing city, but great portions of the space contained within its walls are now covered with mounds of rubbish, and its whole air is that of decaying splendour. *Mequinez*, on the contrary, is cheerful in appearance, and contains broad streets, public squares, and pleasant courts. It is surrounded by beautiful gardens and encircled by hills. *Tangier* is the most important seaport, and the residence of the consuls of the European nations in amity with the emperor. The principal exports are leather, gum, and olive oil.

In old books all the inhabitants of the Barbary states and *Tunis* are indiscriminately spoken of as

Moors, and to the present day that term is commonly applied to the people of Morocco.

All the states just described include part of the Northern Sahara with some of the most fertile of its oases, but these dependencies are in little more than name under the control of the rulers who theoretically govern them.

---

### 67.—POLITICAL DIVISIONS (*continued*).

THE *Western Sahara* is largely peopled by wandering Berber and Arab tribes, but here and there are oases inhabited by a settled population, who frequently, in order to secure themselves from plunder, pay blackmail to the nomads of the country.



Numerous caravans pass across this region, interchanging the produce of the Soudan with the European goods which come by way of the Mediterranean states. The city of *Timbuctoo*, which is regarded by the Moham-

medans as a very holy place, is the principal town of this region. The great caravan routes from Morocco, Algeria, and the Soudan meet here. The Mohammedan population are very fanatical, and the endeavour to enter the sacred city has cost several Europeans their lives.

The *Central Sahara* is, for the most part, occupied by the Tuaregs, who engage in frequent wars with one another. They are chiefly nomads; but here, as in the Western Sahara, there are some settled populations who dwell permanently in the fertile spots. The largest of these settled districts is Asben, ruled over by a sultan, who resides in the capital town Agades.

The *Eastern Sahara* includes the districts of Fezzan and Tibesti. *Fezzan* is claimed by the Bey of Tunis as part of his dominion, but the inhabitants may be properly classed as among the independent tribes. The greater portion of the country is desolate and barren. It contains, however, some habitable parts, which might with a little care and attention be rendered fertile; but, as is generally the case in any country where Turkish rule has spread its influence, all efforts to improve the condition of the people are neglected, and the inhabitants of Fezzan derive their living chiefly from the slave trade, of which their capital town, Murzuk, is one of the great centres. *Tibesti* is the country of the war-like Tibbus, who are of the Negro race. A range of hills traverses this part of the desert in a south-easterly direction, and on the slopes, which are watered by periodical rain, and some parts of which are covered during the wet season with pasturage, there are several towns and villages.

The great sandy waste known as the *Libyan Desert* lies east of Tibesti, and is almost uninhabited.

The commerce of the Sahara consists chiefly in the exchange of gold, ostrich feathers, ivory, iron, salt, and slaves, for manufactured goods, and is carried on by means of great caravans which follow lines uniting the larger towns and oases of the northern and southern borders.

In the description of the *Soudan* we shall begin with the states on the west coast, and then pass on to those of the interior. The north-western division of  
 The Soudan. the Soudan is known as *Senegambia*, a name derived from the rivers Senegal and Gambia, by which it is watered. It is a rich and fertile district, but on the coast fevers are very prevalent. The  
 Senegambia. population consists of Negro tribes, with the exception of the Europeans in the French settlements on the Senegal River, and in the English settlement at the mouth of the Gambia. *St. Louis*, in the French settlement, is the most important town of the district. Gum, beeswax, and ivory are the chief exports.

---

### 68.—POLITICAL DIVISIONS (*continued*).

BETWEEN about 10° N. lat. and the Gulf of Guinea lies the district of the Soudan known as *Upper Guinea*,  
 Upper the maritime part of which is divided into  
 Guinea. the Sierra Leone Coast, the Grain Coast, the Ivory Coast, the Gold Coast, and the Slave Coast. We shall refer to these districts in the order in which we should pass them were we to proceed in a south-easterly direction along the shore.

*The Sierra Leone Coast* is under British rule, the settlement there having been established for the suppression of the slave trade. *Freetown* is the significant name of the principal town, and its population consists chiefly of the Negroes, or of descendants of the Negroes, liberated by British cruisers which intercepted vessels bound to America with cargoes of slaves.

*The Grain Coast*, so called from the grain of a kind of pepper-plant, is for the most part included in the republic of Liberia, a district purchased by an association of citizens of the United States to serve as a colony for the reception of Negroes who had lived in that country and had either been born free or been emancipated. It was hoped by the founders of the colony that the American Negroes would spread among their barbarous kindred in Africa the ideas and habits which they had acquired in a civilised land. The accounts given by different persons of this interesting experiment are so various that it is difficult to learn how far it has been successful. A tribe of native Negroes termed Kroomen form the majority of the population; they are very robust and industrious, and the European vessels trading on the coast take gangs of them on board to do the hard work of the ship. While so engaged they often attach themselves to their foreign employers, learn to speak their language in a rude way, and acquire many of the customs of civilisation; but after a few years the Kroomen almost invariably return to their homes, and relapse into their original barbarous condition.

*The Ivory Coast* derives its name from the quantity of ivory formerly brought from the interior, but the elephants have been so recklessly destroyed that ~~this~~



trade exists no longer. The French have some forts on this coast, but they have not been occupied since 1871.

*The Gold Coast* is under British rule, the chief station being Cape Coast Castle. Gold-dust and palm oil form the chief products of the district, and the latter is exported in very large quantities to Europe.

In the northern part of Upper Guinea immediately inland of the Gold Coast lies the great Negro kingdom of *Ashantee*. It is hilly, and almost wholly covered with dense forests, and communication between the villages and open spaces is confined to narrow paths cut through the woods. The inhabitants are warlike, and have on several occasions proved troublesome neighbours to the British settlements.

*The Slave Coast* owes its name to the slave trade, of which it was once a great emporium. Various Negro tribes inhabit this district, and a part of the coast is included in the Negro kingdom of Dahomey, notorious for the cruelty of the king and the sanguinary superstitious rites practised among the people. Abomey is the residence of the king, the walls of whose vast palace are ornamented with human heads, some bare and bleached by long exposure, others more recently cut off with the ghastly remains of flesh and hair still upon them. Among the curiosities of Dahomey is a regiment of women, who are described as very brave and hardy, and, indeed, fully equal in strength and valour to the king's male soldiers.

Most of the Slave Coast east of Dahomey is in possession of the English, as is also *Lagos*, a little island separated from the mainland by a network of lagoons.

Formerly this island was a great station where slaves awaiting shipment were kept, and the native population consisted only of a few wretched Negroes; but since 1861, the year in which it passed under British rule, the place has undergone a marvellous change. Notwithstanding the bad climate, Europeans and the natives of various parts of Africa have been attracted in great numbers to Lagos by its commercial advantages, and the population now numbers 60,000. In the town there are several Christian churches and missions, schools, a court-house, and an efficient police force. A large trade is carried on from the island with the mainland, consisting in the exchange of British manufactures for palm oil and cotton, which are exported to Europe. Intercourse is maintained with Liverpool by a regular line of steamers.

The only other part of Upper Guinea of sufficient interest to claim our notice is the *delta of the Niger*, an enormous flat tract intersected by no less than twenty-two wide channels through which the waters of the Niger flow into the sea. The numerous branches of this river, as well as those of the Old Calabar and Cameroon Rivers east of the Niger delta, are called the 'oil rivers,' from the large quantity of palm oil thus brought down to the coast. Negroes of very low class inhabit the deltas of these rivers, and in no other part of Africa is superstition seen in more extraordinary or repulsive forms. At Bonny, on one of the mouths of the Niger, the custom prevails of burying twins immediately after their birth; and in the neighbouring districts of New and Old Calabar all children are killed whose upper teeth first appear.

### 69.—POLITICAL DIVISIONS (*continued*).

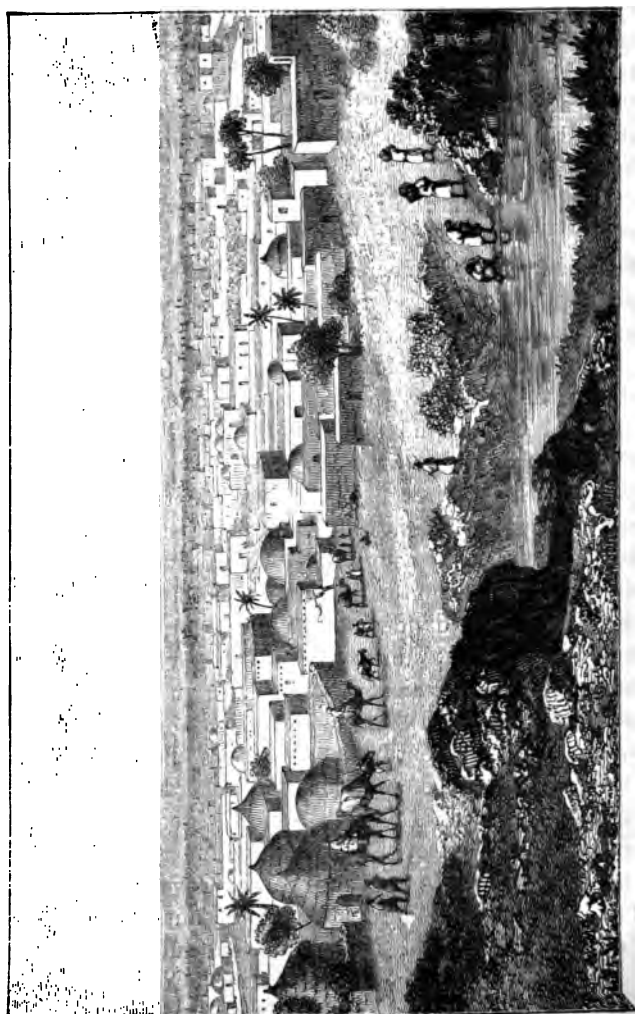
Of the inland divisions of the Soudan, the more important are Bambarra, Houssa, Bornu, Begharmi, and Waday.

Inland  
divisions  
of the  
Soudan.

*Bambarra* occupies a part of the basin of the Upper Niger, and is inhabited by a mixed population of Fulahs and Negroes, some of the former having a good deal of Moorish blood in them. All the people have embraced Mohammedanism, and are in every respect superior to the inhabitants of Senegambia and Upper Guinea. They follow agricultural and pastoral pursuits, and engage extensively in commerce, of which, unhappily, the slave trade forms an important part.

*Houssa* is the name bestowed on the region which stretches eastwards from Bambarra across the basin of the Niger to the Negro kingdom of Bornu. It is subdivided into three states, in all of which the Houssas, a very intelligent branch of the Fulahs, form the dominant race. Although the bulk of the population is Negro, Mohammedanism is the prevailing religion.

Eastwards of the Houssa states lie the important and semi-civilised Negro kingdoms of *Bornu* and *Begharmi*, which include in their area the whole fertile region of the river Shari and of *Lake Chad*, with the exception of its islands peopled by independent tribes. 'In both these nations Mohammedanism is the State religion, and in both we find a fully organised administration, a court and government, with all its accompanying dignities and offices, a military system which



TOWN OF KANO, IN THE HOUSSA STATES.

for Central Africa may be considered fairly worked out; in a word, a people of industrious habits, tillers of the land, and skilled in many of the arts of life; a people that can in no sense be regarded as savages, although still addicted to many practices looked on by us as barbarous.'<sup>1</sup>

East of Begharmi is *Waday*, a district peopled by a variety of tribes. It has not yet been explored by Europeans. The remainder of the Eastern Soudan has already been referred to, as it forms part of the dominions of the Khedive of Egypt.

Under the term of *Lower* or *South Guinea* are included the west coast regions of Africa between Upper Guinea and about 18° S. lat. The Portuguese  
Lower  
Guinea. lay claim to the sovereignty of almost the whole of this territory. Their settlements on this coast are, however, small, and very far distant from one another, and their eastern limits have only quite recently been defined. The territory is subject to a Governor-General, but is divided into four great provinces, and these again into numerous smaller divisions, at the head of each of which is an official who is only very partially controlled by the Governor-General. This system of government has not worked well, as it subjects the natives to the exactions of subordinate officials anxious before all things to make a good speculation out of their term of office. *St. Paul de Loanda* is the chief town and the residence of the Governor-General. The principal exports are ground-nuts, which are valuable for their oil; ivory, gum, and india-rubber.

*Congo Free State.*—An international Commission has

<sup>1</sup> *Stanford's Compendium of Geography and Travel—Africa.*

lately sat to determine the rights of various powers to the vast extent of territory drained by the river Congo. The Portuguese have claimed the greater part, but during the last few years English missionaries and traders have established themselves, German traders have founded small settlements, and the Portuguese and French also have stations. Among so many claimants constant disputes have arisen, and occasional conflicts have taken place with the natives, the real owners of the country. The result of the inquiries of the Commission has been to fix the boundaries. The Portuguese will hold the south bank of the river from its mouth to the first cataracts which interrupt its navigation, a distance of about two hundred miles, and a large district to the south, lying along the coast and extending some distance inland. A new state, known as the Congo Free State,<sup>1</sup> has been mapped out, lying along the north of the river from its mouth for about two hundred and fifty miles, and stretching to the parallel of 4° N. lat., while its eastern limits lie along 30° E. long. and the shores of Lake Tanganyika. The French own a large district between the West Coast, the Congo, and 1° N. lat., but they have no control over the navigable part of the river.

---

<sup>1</sup> The Congo Free State has been placed under the sovereignty of the King of the Belgians, with a central government at Brussels, aided by an Administrator-General on the Congo.

70.—POLITICAL DIVISIONS (*continued*).

THE British colonies and Dutch republics of South Africa include at least half of that part of the continent

which is within the southern temperate zone.  
South Africa.

Cape Colony, a British possession, occupies the southern extremity of Africa; while between the Drachenberg Mountains and the Indian Ocean, separated from the north-eastern frontier of Cape Colony by the independent tribes of Kaffirland, lies Natal, another British colony. These colonies have been described in the earlier book of this series on 'The British Colonies and Dependencies.'

The Dutch republic, known as the *Orange River Free State*, lies west of Natal, from which it is separated by the Drachenberg Mountains. Its name is derived from the fact that nearly all its territory lies between the Nu Gariep and the Vaal, two great tributaries of the Orange River. Immediately north of the Orange River Free State, divided from it only by the Vaal River, and from the coast by Zululand and the possessions of the Portuguese, is the other Dutch republic, known as the *Transvaal*. Thus both of these republics are cut off from the sea-board. The Dutch states are for the most part fertile and healthy; and although the Transvaal extends for a short distance into the torrid zone, the land is so high that even the tropical part of the country enjoys a temperate climate. The most valuable of the vegetable products of the Dutch possessions are cotton, maize, *Kaffir corn*, coffee, sugar, and tobacco. Diamonds have been found in the Orange River Free State, and gold

in the Transvaal. Bloemfontein is the chief town of the former state, and Pretoria of the Transvaal.

Of the early European settlers in South Africa the Dutch were by far the most numerous, and their descendants at the present time greatly outnumber the English even in the British colonies. Farming and cattle-breeding are the favourite occupations of the Dutch settlers, who are generally spoken of as 'Boers,' a term derived from the Dutch word meaning a peasant.

The Boers are religious, hardy, frugal, hospitable, and kindly in their feelings to one another and to Europeans, but they look with the utmost contempt on the African races, and often treat them with harshness and cruelty. These Dutch farmers have frequently endeavoured to impose upon the natives conditions of labour little removed from those of slavery, and it was to escape from the restraint of humane laws passed by the English Government to secure the rights of the natives that many of the Boers left the British colonies. They migrated northwards and established the two republics just described. Both of these have been annexed for short periods to the British dominions, but in neither case did the Boers appreciate the advantages of our rule, and they were in consequence restored to independence.

The most important of the independent tribes in the neighbourhood of the European states are—(1) the Kaffir tribes whose territory, now of very limited extent, intervenes between Cape Colony and Natal; (2) the Kaffir tribes of the Zulu kingdom lying on the east coast, bounded to the

History of  
South  
Africa.

Independent  
native tribes  
of South  
Africa.



south by Natal, to the west by the Transvaal, and to the north by the Portuguese possessions; (3) the Bechuanas, whose extensive domain lies between the Transvaal and the Kalahari Desert, and over whom a British protectorate was established in 1885; (4) the Bushmen who roam over the Kalahari Desert; (5) the various tribes of Hottentots who dwell in the west coast regions, between the Portuguese possessions and Cape Colony. Some of these tribes have lately been brought under the protection of Great Britain.

The characteristics of the South African native races have already been referred to,<sup>1</sup> and we have only further to add that they have not, like the Indians of North America, retired before the advance of civilisation, but still form the mass of the population even in the European states. Many of the natives brought into close intercourse with the colonists have adopted the religion, the dress, and to a limited extent the manners and customs of the white men.

The British and Dutch colonies in South Africa differ widely in character from the European settlements in the tropical coast districts. In the latter the climate is so unfavourable to Europeans that they rarely settle down as permanent residents, and will never form a large part of the population. On the other hand, in the southern temperate regions of the continent the European colonists have thriven and multiplied, and have retained unchanged from generation to generation the distinguishing characteristics of their ancestors.

---

<sup>1</sup> See the earlier book on *The British Colonies and Dependencies*.

71.—POLITICAL DIVISIONS (*continued*).

THE Portuguese lay claim to all that part of the East African coast which extends from Delagoa Bay to the

Portuguese  
possessions  
on the east  
coast.

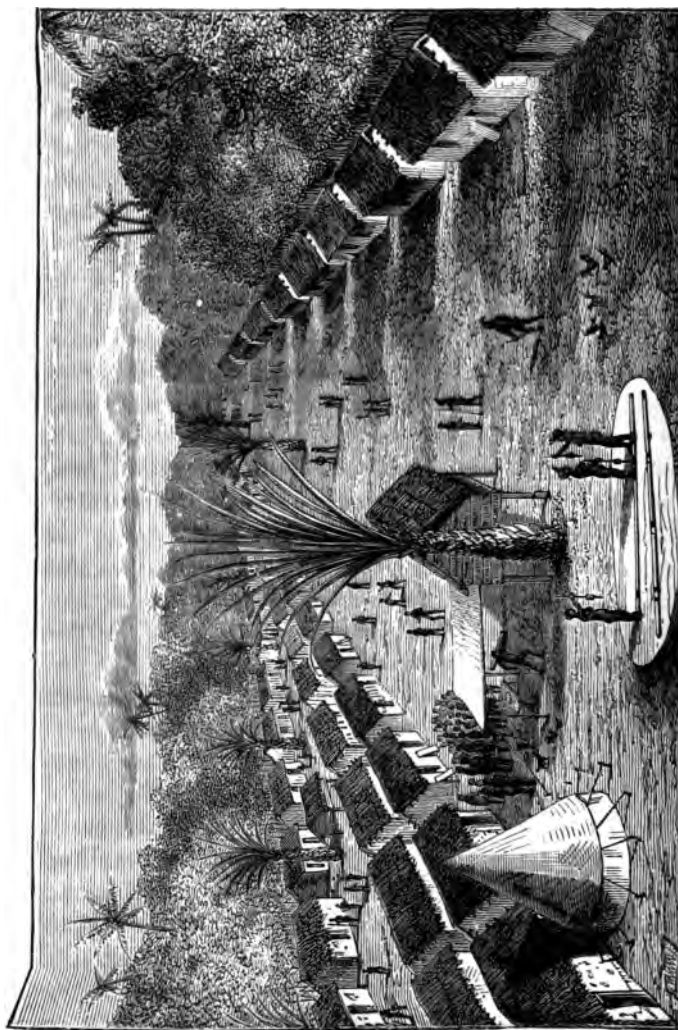
southern limit of the Zanzibar sovereignty in 10° S. lat., but their authority is in reality almost confined to the scattered stations and

towns on the seaboard. Here, as on the West Coast, the slave trade was in former times the great source of revenue, and the importance of the chief ports has decreased considerably since that traffic was declared illegal and forced into other channels. Nevertheless, the country has great natural resources, for the soil is in many parts rich and arable, and the mineral productions include gold and precious stones. Elephants abound in the interior, and supply ivory which is brought down to the coast stations for export. The unhealthy nature of the climate and the misgovernment of the Portuguese are serious impediments to the development of this region. The principal exports are gold, ground-nuts, india-rubber, ivory, and gum copal.

The Zanzibar coast, which extends northwards from 10° S. lat. to about 3° N. lat., is subject to the authority

Zanzibar  
coast.

of an Arab sultan, who has his residence on the island of Zanzibar, from which the coast territory derives its name. The population consists chiefly of Arabs and of half-castes of mixed Arabian, Bantu, and Negro blood, all of them zealous Moham-medans. The trade of the coast, which is important, and has increased considerably since the opening of the Suez Canal, is largely in the hands of Parsee merchants.



They come over from India, their native land, to make their fortune, and are generally successful in doing so, as they have little competition to dread from the natives, who devote themselves chiefly to agriculture. The Zanzibar coast offers a wide field to commercial enterprise, as the soil is rich and the climate adapted to



HEADS OF EQUATORIAL LAKE TRIBES.

the cultivation of many valuable vegetable productions, among which are coffee, cocoa, sugar, various spices, and several kinds of grain. *Zanzibar*, on the island of the same name, is the chief town. Gum copal, grain, ivory, and beeswax are the most important exports. Germany has lately been seeking to establish her supremacy on part of the Zanzibar coast.

North of Zanzibar, between the equator and 10° N. lat., and between 35° E. long. and the east coast, lie the countries of the Somauli and the Galla tribes, the former occupying the eastern and the latter the western portions of this region. In bodily and mental attributes these tribes are very superior to the Negroes, and bear evident traces of their Asiatic origin. The Somaulis are fierce and fanatical Moham-medans, and a very hostile feeling exists between them and their kindred the Gallas, most of whom are heathens. Parts of this district are well watered and fertile, but it has not been completely explored, and our knowledge of it is still imperfect.

Between the countries of Somauli and Nubia lies *Abyssinia*, a territory forming the north-eastern extremity of the South African plateau. It consists for the most part of table-lands varying from 6,000 to 9,000 feet in height, and some of the mountains rise to a height of 13,000 feet. The variety in the altitudes of the different parts of the country causes great diversities in the climate of Abyssinia; and while in the higher districts vegetable products abound of a kind usually found only in a temperate zone, in other districts the vegetation is tropical in character. The majority of the people are of mixed descent, but their predominating physical characteristics have evidently been derived from Arabian or Hamite ancestors. The Abyssinians are generally well formed and handsome, and in appearance the women are very attractive. Most of the Abyssinians profess a peculiar form of Christianity, but their morals are very low. The marriage tie is easily dissolved, and

the people betray gross sensuality in some of their customs. At their feasts both men and women eat and drink to great excess.

As the countries of Eastern Africa north of Abyssinia are included in the dominions of the ruler of Egypt, and have already been described, it only remains for us to refer to the interior states lying between the Soudan and the European colonies of South Africa. The whole of this region appears to be inhabited by Bantu tribes and divided into various kingdoms, some of which are of great extent, all ruled by native and despotic chiefs. Both in mental and physical characteristics the northern tribes of Central Africa seem to be inferior to the Bantus who inhabit the southern and more temperate regions of the continent, and in many cases they have probably intermarried with the Negroes. The mineral wealth of this part of Africa is believed to be great, and the land is for the most part fertile, so that under better government these states might become very productive and prosperous. A part of this region, as already stated, is included in the Congo Free State.

Interior  
states be-  
tween the  
Soudan and  
South  
Africa.

## 72.—AFRICAN ISLANDS.

AT no great distance from the north-west coast of Africa, between 15° and 35° N. lat., are three groups of islands of volcanic formation, to which we shall refer in order as we proceed from north to south.

Western  
Archipela-  
goes.

The *Madeira Islands* belong to Portugal. This group consists of one large island and four small ones.

three of which are uninhabited. The principal island is hilly, and is celebrated for its delightful climate, its varied and beautiful vegetation, and its rich wine. It is a favourite resort for invalids from Europe, especially those suffering from disease of the chest and throat. The population (120,000) is chiefly of Portuguese descent.

The *Canary Islands* belong to Spain. The group comprises seven large and six small islands, favoured with one of the finest climates in the world. On the largest island, named Teneriffe, is the well-known Peak, a volcano 12,000 feet high, the precipitous sugar-loaf summit of which is conspicuous to the mariner at a great distance. This volcano is generally seen with its crater standing out against a clear blue sky above a belt of clouds which even in clear weather frequently encircles the mountain. The population (284,000) is, for the most part, a strangely mixed race, descended from Spaniards, Moors, and the natives who inhabited the islands before the arrival of foreigners. These natives were a brave and hardy but peaceful tribe of shepherds, of whose origin nothing is known. Agriculture and cattle-breeding are the chief occupations of the inhabitants.

The *Cape Verd Islands* belong to Portugal. Santiago is the largest and most fertile island of the group, but St. Vincent is much the most important one to the civilised world, as it possesses a magnificent harbour, and is a place of call and a coaling station for several ocean lines of steamers. The population (91,000) consists chiefly of Negroes and half-castes, who are industrious, and not only till the land, but carry on some *small manufactures*.

In the eastern extremity of the Gulf of Guinea is a little cluster of five volcanic islands. *Fernando Po*, the largest of them, belongs to Spain, and is remarkable for its beautiful mountain, wooded almost to the summit, which rises to the height of 10,000 feet, in the form of a perfect cone. The island is used as a penal settlement by Spain, and the natives are a harmless but low-class African tribe.

On the east coast of Africa, separated from the mainland by the Mozambique Channel, lies the vast island of *Madagascar*, with an area equal to that of the German Empire. The coast is bordered by low plains, while all the interior, separated from the lowlands by an almost continuous belt of virgin forest, is occupied by mountains and table-lands. In strong contrast to the continent of Africa, the island of Madagascar abounds with traces of volcanic action, as many as 140 extinct craters having already been discovered. On the elevated table-lands the climate is healthy, and the slopes of the hills facing the Indian Ocean are very fertile, but the whole of the south-west—comprising nearly half the island—is rather barren and very thinly inhabited. The population—variously estimated at from 2,500,000 to 4,000,000—is varied in character, comprising a few Arabs, and persons of mixed descent who have come from the Portuguese possessions on the adjacent African coast and from the Indian ports. But a great number of the inhabitants afford evidence both in their dialects and appearance of being of Malay extraction. The central part of Madagascar, which is best known to Europeans, is an independent despotic monarchy, now under the rule of a queen, who



on her coronation had the Bible placed at her right hand and declared all the old religious observances abolished; she was subsequently baptised and received into the Christian Church, and in 1869 all the idols were, by her orders, destroyed, and Christianity was established as the religion of the State. The Hovas, as the people under her immediate rule are called, claim a sort of supremacy over all the other tribes, but, practically, their influence is confined to about one quarter of the island. Cattle-rearing and agriculture are the principal occupations of the people, and the country possesses considerable mineral wealth. The animals, birds, insects, and plants of Madagascar are of much interest; many species are confined to the island, and others are rather Malayan in their character than African.

---

## APPENDIX.

---

### 73.—OCEAN CURRENTS.

OCEAN CURRENTS are produced by several distinct causes, some of which correspond in their nature to the main causes which create and vary the direction of winds. Just as warmer air rises, and currents of cooler air rush in to take its place, so warmer water ascends, and currents of cooler water flow in to replace it, the density of both air and water increasing or decreasing *with decrease or increase in their temperature*. Thus *differences of temperature set both air and water in*

circulation. If we consider this fact we shall readily discover the main cause of some of those ocean currents, the influence of which on the climate of certain parts of the world has already been referred to. In the tropical regions the greater heat of the direct rays of the sun raises the temperature of the surface water to a comparatively high point, but it has of late years been found that this higher temperature does not extend to any considerable depth in the waters below. On the other hand, in the frigid regions the vast ice-fields and the bitter frosts chill the surface waters, which sink, and displace the warmer waters below by reason of their greater density. By this means under-currents are created, which move from the frigid regions and displace the warmer waters nearer to the equator. As the latter are thus forced upwards they flow as surface currents from the tropical regions to the north and to the south. Consequently we find several cold under-currents flowing *towards* the equator, and warmer surface currents flowing *from* it. The cold currents sink so gradually that they continue to chill the atmosphere during the first part of their course, while the temperature of the warm currents falls so slowly as they flow towards the poles, that several of them retain their warming influence almost to the borders of the frigid regions. It is necessary also to explain that the courses of the surface currents from the equator to the north or south are modified by the action of the prevailing winds, as well as by the position and shape of the coast-lands with which they come in contact. Indeed, some currents are attributable exclusively to the influence of *constant or periodic winds*,

Leaving the consideration of the tides to the next lesson, it may now be said that there are two main influences affecting the movements in the waters of the oceans :—(1) The unequal heating of the waters in different parts which causes an upward and a downward movement of the waters between the surface and the depths, and also a northward and a southward movement between the equator and the poles ; and (2) The action of the prevalent winds which gives direction and velocity to the surface currents thus formed. It must, however, be added that some persons hold that the rotation of the earth modifies the direction of some ocean currents somewhat in the same way that it modifies the course of some of the winds.

Currents, other than tides, may be divided into three classes :—(1) *Constant currents*, produced by differences in temperature, and modified in their courses by winds ; (2) *Periodic currents*, due to the action of land and sea breezes, and monsoons ; and (3) *Counter currents*, which flow side by side but in contrary directions to the great currents. There is also to be recognised a general ‘creep’ of cold polar water towards equatorial regions, and a general low drift of warm water towards the poles.

A constant current flows from the Antarctic regions in a northerly direction to the South Atlantic. It joins Currents in Atlantic Ocean. in a current which flows out of the Indian Ocean into the Atlantic, flows parallel to the west coast of Africa until when near the equator it bends to the west, and crosses the Atlantic Ocean, as the Equatorial Current. Striking the coast of Brazil, it divides into two branches, *one running south along the coast of South America under the name of the Brazil current.* The northern of

these two branches, however, is by far the more important. It flows through the Caribbean Sea, sweeps round the curve of the Gulf of Mexico, and rapidly increasing in temperature and in speed, it rushes out through the channel at the south of Florida as the famous Gulf Stream. It now flows parallel to the coast of North America as far as the banks of Newfoundland, where, meeting the colder Arctic current, it turns to the east and crosses the Atlantic, carrying its warm waters to the west of Europe. There, following the direction of the prevalent winds, it bathes the shores of the British Islands and of Norway. When the Gulf Stream leaves the Gulf of Mexico, it forms in the ocean a kind of river sixty miles broad and 600 feet deep, having a temperature of about 80° Fah., and a velocity of from four to five miles an hour.

The Gulf Stream.

A current known as the Antarctic Drift enters the south-east of the Pacific, and flows for some distance along the west coast of South America. Near the equator it bends westward and, as the Equatorial Current, it proceeds across the Pacific. When near the coast of China it breaks up, the most important branch being that which flows past the shores of Japan, and which is well known as the Japan Current.

---

Currents in Pacific Ocean.

## 74.—TIDES.

TIDES are caused by the mutual attraction of the earth and the moon, and in a less degree by the mutual attraction of the earth and the sun. The waters being fluid, change their form under the influence of these forces, while the solid earth remains unaltered. The operation of these forces upon the water may be observed daily on our own shores. When the moon is directly over the Atlantic Ocean, which washes the shores of the British Isles, it draws its waters into a long bank, stretching north and south, and rising to a height of about five feet, the summit of the bank being almost under the moon, thus causing high water, or high tide. But when the moon is directly south of the British Isles, the bank of waters gradually becomes heaped up upon the coast, and being confined by the shores, rushes up the gulfs and straits and narrow seas, thus causing what we call a *tide*.

As the moon is on the meridian of any given point on the earth's surface only once in twenty-four hours, this explanation would account for only one tide during the day. But when the moon is directly causing a tide upon any part, there is a corresponding heaping up of the waters on the other side of the earth exactly opposite. This is caused by the solid earth being slightly drawn more towards the moon than the waters on the farther side of it are. Thus there are two tides a day all over the world, for as the earth turns on its *axis*, every place upon its surface must come directly *under the influence* of the moon, and must also be farthest

away from that direct influence, once in about twenty-four hours. Thus we see that as the British Isles gradually approach the position of being directly under the influence of the moon, the waters near the shores gradually begin to rise. This rising continues for about six hours, during which time the waters move up the harbours and across the seas, and the tide is said to *flow* until the highest point or *high tide* is reached.

Then for about another six hours the water gradually falls lower, or, as it is said, *ebbs*, until *low tide* is reached.

The same thing happens during the next twelve hours or thereabouts, so that during a little over twenty-four hours high tide and low tide both occur twice. Between the time of one high tide and another the moon has moved some distance in her orbit, and thus high tide is on an average about fifty minutes later on any day than on the day before.

But it is noticed that regularly every fortnight the tides reach their greatest height. Thus on a particular day it may be seen that at London Bridge the tide reaches a height, say of nineteen feet, while on the same day in the following week, it rises only eleven or twelve feet. How can this difference be accounted for? At the beginning of the lesson, it was stated that the sun helped to cause the tides. The fact is that the mutual attraction of the earth and the sun causes tides in exactly the same way that, as already shown, the mutual attraction of the earth and the moon does, though in a less degree.

When the moon is in such a position towards the earth and the sun that sun and moon exert their influence together in drawing up the waters, the tides

reach their greatest height. These are called *Spring tides*. When the sun and moon are in other relative positions, and exert their influence in different directions, the tides do not rise to so great a height. They are then called *Neap tides* (or nipped tides). As the moon takes twenty-eight days in its revolution round the earth, it follows that if the sun and moon are in such a position on the first of the month as to exert their influence on the earth in the same straight line, then on the seventh the influence of one would act at right angles to that of the other; on the fourteenth they would again be in line with each other, and on the twenty-first again acting at right angles. Thus on the first and fourteenth there would be Spring tides, and on the seventh and twenty-first Neap tides.

The height to which the tides rise in any opening into the land depends largely upon the configuration of the coast-line. In a long and deep gulf like the Bristol Channel the tidal wave rushes up, and being squeezed by the narrowing shores rises to a great height, so that at Bristol the tide sometimes reaches a height of fifty feet, while in the English Channel, which is open at both ends, it only reaches twelve and a half feet. In the Bay of Fundy, in North America, the tides reach their greatest height, there being a difference between high and low tide of from eighty to one hundred and twenty feet.















